The Journal of the
American Medical Association

VOL. XXVIII. CHICAGO, ILL., FEBRUARY 27, 1897. No. 9.

LECTURE.

ACUTE CATARRHAL INFLAMMATION OF THE STOMACH.

A Clinical lecture delivered in Rush Medical College.

BY HENRY M. LYMAN, A.M., M.D.
PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE.
CHICAGO, ILL.

The patient whom I place before you this morning is, you see, confined to his bed. He was brought to the hospital three days ago, in a state of alarming prostration, vomiting and purging, and unable to retain anything in his stomach. This condition had been induced by a prolonged debauch, in which the usual accessories—wine and women—had been combined with almost fatal effect. Being only 22 years of age, and of a delicate organization, his stock of vital energy was insufficient for the occasion. Though considerably relieved, he can not yet tolerate the sight or smell of food; and ever since his admission to the hospital, he has been fed with nutritious enemata, and his stomach has been given perfect rest. His tongue is thickly coated; his breath is offensive; there is a small patch of herpes on his lower lip; his bowels, which were quite loose, on admission, are now only moved twice a day; his urine was scanty, high-colored, and acid. This specimen was passed shortly before leaving his ward; it is more copious than previously, and, now that it is cool, has deposited a copious brick-dust sediment that is composed chiefly of urates. The matters that were vomited when the patient first entered the hospital were very acid, slimy, and latterly of a greenish color and bitter taste. The acidity of the vomitus was found to be consequent upon the presence of lactic and butyric acids. Free hydrochloric acid was entirely absent. After the subsidence of vomiting there were frequent paroxysms of hiccough interspersed with belching of gas and the ascent of acrid fluids into the pharynx and mouth. These evidences of gastric uneasiness have now ceased to occasion any considerable annoyance, and will soon disappear, but the patient still complains of frontal headache with a feeling of intra-cranial fulness that is aggravated during each systolic impulse from the heart. On raising his head from the pillow, there is an overpowering sensation of dizziness. The special senses are painfully exalted, and there is tenderness all over the epigastric region when pressure is made below the xiphoid cartilage. The whole abdominal wall is morbidly sensitive to pressure, but the epigastrium is more susceptible than any other part. There is complaint of burning pain felt at intervals between the scapulæ, especially after an attempt to take food of any kind. When admitted to the hospital the bodily temperature was 102 degrees F., and the feeble pulse-beat was 118 per minute. This morning, however, the temperature is 98.2 degrees F., and the pulse is quite normal, though rather weak and easily excited.

Since we can not open this man's stomach, and look into its cavity, I must tell you what would have been found had he died two or three days ago. The mucous lining of the organ would have been covered with mucus, and through its translucent layer would have been visible the reddened membrane itself. The pyloric extremity of the stomach is the seat of severest inflammation in such cases; and there the color is deepest, and the swelling of the mucosa is greatest. Some day Professor Hektoen will have the opportunity to show you such a stomach, and I ask you then to observe the manner in which the evidences of inflammation, redness and swelling, are intensified in the vicinity of the pylorus, where it is not unusual to discover actual ruptures of the small vessels in the mucosa, with general deep staining of the membranous surface, while in the cardiac extremity of the viscus the vessels are only slightly prominent, giving them an appearance of arborization upon a comparatively pallid background of nearly normal mucous membrane. In many instances the surface presents a patchy appearance, indicating local variations in the intensity of the inflammatory process. This local variation differentiates the appearances caused by inflammation from the uniformly diffused hyperemia that flushes the mucosa during the act of digestion. Microscopic examination shows that the active proliferation of cells that occurs during inflammation differs from what takes place during digestion chiefly in the tumultuous and excessive character of the process, and in the substitution of mucus for gastric juice as the final outcome of glandular action. The connective tissue also exhibits the results of exudation and inordinate multiplication of its elements. The blood and lymphatic capillaries present the usual changes that are witnessed in connection with inflammation in other parts of the body.

The history of this case refers the disease to excessive drinking of alcoholic liquor. But in many cases no alcohol has been taken. Some of the most violent cases of acute gastritis are excited by the use of tainted meats or sweets that have been accidently transformed into culture media for the growth of poisonous bacteria. Several times I have been called to treat whole families who had been violently attacked with vomiting and collapse within a few hours after eating ice-cream or "floating island," which had been kept in a damp and moldy cellar. A few years ago nearly one hundred persons in the State of Iowa were thus prostrated on one of the hottest days in summer at a wedding feast at which the company had been regaled with chicken-meat in a condition of incipient putrefaction. In like manner, the disease is often induced by eating unripe fruit and coarse vegetables that produce mechanical irritation of the stomach. It is sometimes produced by accidental swallowing of coins or other objects which jugglers are wont to conceal in

their mouths. When occasionally by over-eating, it is not so much the result of excessive distention of the stomach as of the fermentations that are set up within the gastric cavity. The products of fermentation and decomposition irritate the mucous surface, and in that manner excite inflammation.

Acute inflammation of the stomach is frequently due to disturbances of the nervous system. To this cause must be referred the effect of sudden cooling of the body when overheated, either by exposure to cold air or by copious draughts of ice-water. Anxiety, lack of sleep, and inordinate sexual excitement are frequent causes of acute catarrh among neurotic and arthritic subjects. The disease is sometimes caused by disorganization of the mucous membrane through the introduction into the stomach of over-heated liquids, or chemical corrosives like acids, alkalies, corrosive sublimate, tartar emetic, alcohol, croton oil, colchicum, etc. Inflammation is also sometimes excited by the poison of gout, uremia and cholemia. It is a common incident in the course of the infective diseases, such as measles, scarlet fever, typhoid fever, erysipelas, etc. Among young children it is often noted in connection with acute intestinal catarrh as the result of bad feeding and exposure to various infections. After adult life has been reached it is observed among males more frequently than among females, and is often associated with ill health that is caused by tuberculosis, syphilis, cancer, chlorosis, hysteria, and chronic obstruction of the portal circulation dependent upon hepatic, pulmonary or cardiac diseases. It is sometimes due to infection with discharges that are swallowed from diseased oral, nasal, or pharyngeal cavities, such as are encountered in cases of salivation, syphilis, tuberculosis, and gangrene of the respiratory organs. Occasionally, it accompanies peritonitis; and it may result from an ascending inflammation of the small intestine.

Excepting the cases of young children and of violent toxic catarrh, the disease tends to recovery. Sometimes its duration is very brief, as after an occasional temporary excess in eating and drinking; but the duration is usually about one week. Relapses are frequent; and there is always danger that the disorder may be thus prolonged, and gradually subside into a condition of chronic gastric catarrh.

The treatment of these cases should begin with thorough evacuation of the stomach, so as to remove all local causes of irritation, and to procure rest for the wearied organ. Our predecessors, when called to treat a brawny rustic who was brimful of beer and cabbage, were in the habit of giving an emetic containing ten grains of ipecacuanha, ten grains of zinc sulphate, and half a grain of tartarized antimony. This was usually effectual, but the resulting commotion was extraordinary, and was sometimes productive of coolness toward the prescriber. For such a patient as you have before you, a hypodermic injection of one-tenth of a grain of apomorphia would be quite sufficient, and would have the additional advantage of avoiding all irritation of the gastric mucosa. If the stomach be distended with gas, so as to produce discomfort, and to be noticeable on percussion, it may be expelled by the aid of alkalies. To children and delicate females may be given dram doses of the milk of magnesia, or tablespoonful doses of Sir James Murray's fluid magnesia, frequently repeated until relief is procured. To more vigorous patients should be given five grain doses of sodium bicarbonate, or a tablet of purified sodium salicylate, or a grain or two of resorcin, either singly or altogether, according to the severity of the case. These drugs should be administered in wafers or capsules, and may be washed down with copious draughts of Vichy water, or Selters water, or carbonated lithia water or plain diluted lime water.

If there be diarrhea or intestinal rumbling, indicative of the passage of irritating substances into the bowels, a cathartic should be administered. Drastic purgatives must be avoided, and the choice should fall upon mild cathartics, such as ten grains of calomel laid upon the tongue and followed by a five grain tablet of sodium bicarbonate—the ordinary soda-mint tablet of the shops. Or a teaspoonful of calcined magnesia, thoroughly moistened with mint water may be given every two hours until an operation of the bowels is procured. These remedies may be aided by a large enema, and, after the subsidence of vomiting, by the administration of an ounce of castor oil floating upon a mouthful of hot tea or lemonade, or disguised by the froth of fresh beer. It should not be given with whisky or other distilled liquor, for the reason that catarrhal inflammation of the gastric mucosa is always aggravated by alcohol.

For the relief of pain the abdomen should be covered with a large hot poultice of flaxseed meal into which have been stirred a dram each of chloroform and tincture of opium. If there be repeated vomiting and pain that is unrelieved by external application, a hypodermic injection, containing one quarter of a grain of the sulphate of morphia with the one hundred and twentieth of a grain of atropin, should be administered. If the patient finds the weight of a poultice disagreeable, it may be exchanged for light flannels wrung out of hot water and covered with oiled silk, or a large piece of spongio-piline similarly moistened may be applied to the abdominal surface. In this way the patient before you has been relieved of the most distressing symptoms of his disease. He now takes a little hot chicken broth every two hours, and is allowed rice-water, toast water or barley water for drink. Tomorrow, he will be allowed to take hot milk in addition to these liquids. As he is not suffering with diarrhea, the milk need not be boiled, but only heated to a temperature of 160 F. This will be sufficient to destroy all ordinary germs without detracting from its appetizing and nutrient qualities. He will also receive ten drops of dilute hydrochloric acid in four ounces of water after meals three times a day, for the purpose of stimulating the excretory organs of the body to effect the complete removal of the products of inflammation, and, incidentally, to replace the free hydrochloric acid which is absent from the gastric juice during an inflammatory attack.

ORIGINAL ARTICLES.

IS THE INJECTION OF AIR IN HYPODERMIC MEDICATION A SOURCE OF DANGER?

BY CHAS. T. McCLINTOCK, M.D., PH.D.
DETROIT, MICH.

In concluding a paper on "The Cause of Sudden Death after Antitoxin," Seibert and Schwyzer (American Pediatric Society, May 24, 1896) say: "We here express our firm opinion that the sudden deaths reported after antitoxin injections were caused by

injected air and not by antidiphtheritic serum." I believe that this conclusion is without any justification whatever. It has been shown over and over again that relatively large quantities of air could be injected directly into the circulation in the lower animals without serious consequences. Senn, Hare, Adamkiewicz and others have reported experiments in this line with the conclusions that the danger from air injections is small indeed.

Nevertheless, it is believed by most practitioners that the accidental injection of even a small bubble of air may be followed by very severe consequences. Many of the older books teach this. The experiments and conclusions of Drs. Seibert and Schwyzer have been widely quoted and doubtless will add to the dread that many physicians have of hypodermic medication. As said before, I believe that their conclusions are wholly wrong.

The following experiments and the results agree substantially with those of Senn and Hare. In the production of antidiphtheritic serum it occasionally happens that a horse is paralyzed from the injection of the diphtheria toxin. In such a case it is customary to kill the animal with chloroform. Recently I had two horses so far paralyzed that they were unable to get on their feet. They were ordered chloroformed, but my assistants having read of the conclusions of Drs. Seibert and Schwyzer asked permission to try the effects of air injection. Horse No. 1, 20 c.c air injected into the jugular, no effect; after five minutes 20 c.c., no effect; after five minutes 40 c.c., no effect; after five minutes 80 c.c., no effect; after five minutes 160 c.c., labored breathing. Horse No. 2, 320 c.c., into jugular; after one minute quickened respiration, spasmodic contractions of muscles; after four minutes, hiccoughs lasting ten minutes; fifteen minutes, uneasy but respiration slower, an occasional hiccough; two hours later no apparent effect. Several hours later this horse was given 600 c.c. air in the jugular; after one minute struggling, spasmodic respiration. It acted as if choking, profuse sweating, temperature falls 0.4 degree; after ten minutes, symptoms all gone. Fifteen minutes later 1,200 c.c. air injected; quiet, almost stops breathing; breathing stops ten seconds, then continues normal after a few minutes; after waiting twenty-five minutes and no symptoms appearing, the animal was chloroformed.

Dog, weighing about twenty pounds. The jugular was laid bare and with a 20 c.c. syringe, sixteen of these syringefuls (320 c.c.) were one after the other injected. One minute after the injections began, quickened and labored breathing set in; in fact the symptoms were practically the same as in the horse, dyspnea. A few minutes after the injections were stopped the the animal recovered and normal breathing was reëstablished. After an hour the injections were repeated with practically the same results.

Rooster, a small bubble of air injected; no apparent effect; then 1 c.c., the bird becomes somewhat dyspneic, acts just as a chicken that has run for some distance, gasps for air, soon recovers entirely.

Rabbit, injected with 20 c.c. air, decided action at once, quickened respiration, spasmodic contraction of muscles, etc. After two minutes, respiration less frequent and gradually stops, three and three-fourths minutes, dead.

Guinea pig, injected with small bubble of air, no effect; after three minutes 1 c.c., quickened respiration, etc., but animal recovers entirely.

These experiments were repeated on different animals with similar results.

In observing these animals one is struck by the similarity of the phenomena to those of dyspnea, and indeed they are dyspneic. The air entering the heart and remaining there as an air embolus, as some would say, stops the circulation; or it passes the heart and forms air emboli in the branches of the pulmonary artery; this for the time shuts off the blood from the portion of lung supplied by that particular vessel and the animal becomes dyspneic. It is easy to see that if enough air is injected, the circulation in the lungs may be so nearly stopped as to cause death, but one or several bubles of air would merely temporarily close a few of the branches of the pulmonary artery. This air would be absorbed by the blood in a very short time, especially as it is in contact with venous blood and under arterial pressure.

The prevalent idea that if the ventricle is once distended with air it can not empty itself, owing to the fact that the air is perfectly elastic and during the contraction merely becomes smaller in bulk, without forcing open the valves and escaping, I do not believe is justified. While the air is perfectly elastic and its volume would decrease with the increasing contraction of the ventricle, so inversely its pressure would increase and as the ventricle practically obliterates its cavity at the close of the contraction, it seems to me that the pressure must open the aortic valves and force the air on.

The rabbit was killed in the above experiments with 20 c.c. of air, but a corresponding amount for a forty pound child would be 400 c.c., or far more than enough to occlude all the branches of the pulmonary artery.

As for ordinary hypodermic medication, or serum administration, I believe the danger from air injection is absolutely *nil*. In using the Koch syringe for giving small measured quantities of serums, toxins, etc., it is customary, in order to be sure that the entire amount of fluid is injected, to allow one or more small bubbles of air to escape from the needle. During the past six years I have made literally many thousands of such injections into rabbits, guinea pigs, rats and mice, and I have yet to see any harm come from it.

But there are sudden deaths following the injection of serums; how are we to explain them? Experiments seem to show that the serum *per se* is not responsible; the carbolic acid or trikresol does not deserve the blame, and if air can not be proved guilty, what is? It seems to me that the question is as yet unanswerable. I have read somewhere of a case, I think it was reported from Louisville, Ky., where a strong man, standing in a doorway, was stung on the forehead by a bee; he fell and expired almost instantly. Wood, in his "Therapeutics," says: "I have seen the injection of a sixth of a grain of morphin followed inside of a minute by complete unconsciousness, collapse, arrest of respiration, dropping of the jaw and apparent death."

As having a possible bearing on the case I record the following: I have made many hundreds of hypodermic injections into patients of nuclein solution. These injections varied in amount from two or three to two hundred minims. In some five or six instances I have noted immediate, marked, alarming symptoms. In these injections I was always scrupulously careful to see that the syringe contained no air. In one case

I gave a small injection to a young man in the back; he was standing half-stripped; I gave the injection and turned around to put away the syringe. The patient fell headlong on the floor. He arose immediately, and beyond feeling a bit faint, showed no other symptoms. This patient had just learned that he had tuberculosis and was nervous and disheartened. In the other cases, the patients were lying down; immediately following the injection the face became livid, and there was more or less unconsciousness for a few seconds. On recovering, which was complete in a few minutes, they would say that they became faint, or had a "gone" feeling. The phenomena, however, suggested cerebral congestion, rather than anemia. In each of these cases the patient walked home after a few minutes, and there was no apparent after-effect.

As said before, I have no explanation for the sudden deaths following the hypodermic administration of serum, but I feel sure that air is not responsible. It seems to me that it will be a gain to give definite form to our ignorance in the matter by calling these phenomena, shock.

ETIOLOGY OF DISEASES PECULIAR TO WOMEN.

Read at the Marion County Medical Society and at the Forty-Seventh Annual Meeting of the Indiana State Medical Society held at Fort Wayne, May 28-29, 1896.

BY MARTHA J. SMITH, M.D.

Member of the Marion County and Indiana State Medical Societies; House Physician in Dr. Frank Ferguson's Sanatorium for Diseases of Women and Abdominal Surgery.

INDIANAPOLIS, IND.

The object of this paper is to bring before you the most frequent causes of diseases peculiar to woman, which come under one's daily observation, and which are to a great degree avoidable. I shall discuss the habits and influences which deteriorate her power of endurance and diminish her capacity for resisting disease. Observation proves that women not exposed to degenerating influences, can compete in strength and endurance with men of their race and in some savage nations they are regarded as superior to them.

The truth of this statement is now being verified by the Cuban Amazons, who are taking a prominent part in the fights between the insurgents and the Spanish troops. These women, many of whom have husbands in the ranks of the Cuban army, have exhibited on frequent occasions, courage, endurance and fighting skill to a greater extent than many of the men. These women are not, as a rule, remarkable for personal beauty or cleanliness, but they are strong of limb, vigorous in action, and can use a rifle, revolver or knife with the best of the men, and whenever there is any fighting to do they go into the thick of it with energy and dash.

In the lower order of animals this equality in the female is still more marked. From such facts we can readily see that if women were properly developed and placed beyond causes which interfere with their physical well being, they would be in no great degree inferior to man.

There are two periods in the life of women in which they are peculiarly susceptible to morbid influences which, if not removed, will almost surely produce either structural or functional disease, oftentimes both, viz.: Puberty and menopause.

One of the most frequent diseases appearing at the age of pubescence is anemia, which oftentimes prevents the appearance of the menses at the usual age and gives rise to grave forebodings upon the part of the mother and frequently leads to unwise attempts to force the establishment of the menstrual function. Amenorrhea during menstrual life, although treated of in most of our gynecologic works as a separate disease, is in all cases a mere symptom of disease, either constitutional or local, or an indication of the absence, or a rudimentary state of the uterus or ovaries, or of pregnancy. Among the most frequent constitutional diseases that produce amenorrhea in young girls and unmarried women are anemia and chlorosis and these may be produced by a long siege of sickness of any kind that destroys or impairs digestion and assimilation. Less frequently in our country they are produced among the poor by insufficient food and clothing and long hours of toil.

The most frequent local causes that produce cessation of the menses are as follows, viz.: Occlusion of the uterus or vagina, atrophy of the uterus, atrophy of both ovaries, cystic degeneration of the ovaries, pelvic peritonitis and anteflexion of the uterus. The cervical canal may also be congenitally or accidentally closed and the vagina may be occluded from congenital or acquired atresia.

There is a condition of the nervous system called by Dr. Hodge of Philadelphia, "Sedation," and by Dr. Thomas, "Atony of the Nervous System," that sometimes causes cessation of the menses. It consists in a decrease of the excitability, vigor and activity of the nervous agency which controls the functions of different organs and has for its cause physical and moral influences, such as mental depression, indolence and luxury, want of fresh air and exercise, etc. It is a very common thing to hear a physician say: "I have a case of dysmenorrhea which is giving me a great deal of trouble and nothing seems to do her any good." Probably it has never occurred to him that dysmenorrhea, like amenorrhea, is only a symptom of disease and may be produced by several separate and distinct causes and the treatment must be directed to the removal of the cause. Any condition affecting the structure of the uterine walls, or its appendages, or the peri-uterine structures, making the nerves supplying these parts morbidly sensitive, will produce pain at the beginning of the menstrual flow, while anything producing obstruction to the flow, such as stenosis of the cervical canal, flexions, etc., may produce pain during the entire period.

The desire to render girls accomplished at all hazards has originated a system of forced mental training which greatly increases the irritability of the brain and nervous system, while at the same time sedentary occupations are followed to the exclusion of active exercise out of doors. This powerful influence on the nervous system, and especially on the reproductive system, is quite frequently overlooked. No amount of mental training or degree of mental development will fit a woman for the physical duties of a wife and mother, or render her capable of bearing children competent to resist the inroads of disease.

The woman who neglects physical exercise is peculiarly susceptible to uterine and ovarian trouble at the menstrual period. Exposure to severe cold during menstruation without adequate protection from warm clothing, is liable to produce inflammation of the mucous membrane of the uterus. Such an inflammation once excited will oftentimes continue for years

and in time end in interstitial metritis, entailing in its progress, dysmenorrhea, sterility, pelvic pain, gastric disorders and impaired digestion and nutrition. Cases of pelvic peritonitis sometimes develop at this trying period of congestion and nervous exaltation.

The menopause is that period in a woman's life during which the menstrual function is gradually abolished through atrophy of the uterus and ovaries. It has been called the "critical period," because certain diseases, such as cancer of the uterus, are more likely to occur at this period than at any other time and diseases already existing are liable to be aggravated. There is a widespread belief among women that the "change of life" is necessarily accompanied with many distressing symptoms, which will cease when the change is fully accomplished and not before. This erroneous belief is too frequently fostered by physicians and has caused many a woman to refuse medical consultation until disease has advanced too far to be amenable to the physician's art. The menopause is a physiologic process and a woman whose general health is good and who has no disease of the reproductive organs, will usually pass through this period with almost uninterrupted physical comfort.

The most distressing and most fatal malady to which women are subject at this period of life, is cancer of the uterus, and so stealthy and insidious is its approach that many women pass beyond hope of cure before they experience any serious or alarming symptoms. Women should be taught by their physicians that the menopause is not necessarily accompanied by pelvic pain or uterine discharge of any kind; on the contrary, such symptoms are indicative of disease and should be carefully inquired into. They should be taught that pain is not present in the first stage of uterine cancer and that it is only when the disease has advanced to a hopeless stage that it produces pain. Every woman who has borne children should submit to frequent pelvic examinations while passing through the menopause in order that cancer may be detected in its early stage and early operation resorted to for its cure. If this rule were generally adopted, it would result in the saving of many precious lives that are otherwise doomed to a horrible death.

Constipation is a fruitful factor in the production of general as well as local diseases and frequently aids in the production, if it is not a direct cause, of displacements. The full bowel resting upon the body of the uterus will aid in the production of flexions and versions and in conjunction with other causes may produce pelvic inflammation and it certainly aggravates whatever disease may be present in the pelvis.

After the expulsion of the embryo, either at full time or at any period of pregnancy, the muscular structure of the uterus undergoes a process of fatty degeneration and absorption, which has received the name of involution. The process occurs rapidly after abortion, but after labor at term it requires six weeks under the most favorable conditions for its accomplishment. In order that involution may proceed with normal rapidity and certainty, perfect rest is essential. The woman who after parturition resumes her usual occupation before the completion of involution, invites subinvolution, displacements of the uterus and its appendages, and a general relaxation of the pelvic tissues, the occurrence of which will render her an invalid for months or for years, perhaps for life.

It is now universally recognized that lacerations of the pelvic floor are the chief cause of cystocele, rectocele and prolapsus uteri, and a large proportion of cases that consult the gynecologist are suffering from diseases that might have been prevented if the obstetrician had not neglected one of his most obvious duties, viz., the early repair of lacerations.

Lacerations of the cervix uteri are, in some cases, important factors in uterine pathology, but in many cases in which their existence is recognized by inspection, they produce no evil results whatever. Dr. T. A. Emmet first recognized the significance of the lesion and taught us how to repair it, and yet there are few who believe his statement that "at least one-half of the ailments among those who have born children are to be attributed to laceration of the cervix." That they do occasionally produce subinvolution and hypertrophy of the cervix, undergo cystic degeneration, produce sterility, dysmenorrhea, etc., there can be no doubt and the frequency with which cancer of the cervix appears upon the site of an old laceration is significant. But after cervical lacerations have been given due credit for all the mischief they are capable of doing, the fact remains that many times they have been wrongfully accused and as a result the operation of trachelorraphy has been greatly overdone.

That criminal abortion constitutes a prolific cause of many diseases of the uterus and its appendages, no one engaged in the practice of medicine can for a moment doubt. Dr. P. F. Chambers of New York, says: "In my experience the most frequent cause of pelvic trouble among married women is abortion and in the majority of cases abortion artificially or intentionally produced." Dr. Grandin says he is satisfied that fully 50 per cent. of the pelvic troubles of women could be traced to improperly treated abortions. Dr. Wm. M. Polk says abortions are the most common cause of disease of the appendages. Dr. Andrew F. Currier says the production of criminal abortion is probably responsible for more of the serious diseases which affect the pelvic viscera of women than any other cause. When we consider the vast multitude of women who habitually resort to the criminal abortionist to be relieved from the responsibility and inconvenience of child bearing, the wonder is that the crude and dangerous methods by which the act is usually committed, does not produce more chronic invalidism than superficial observation would lead one to suppose.

Specific vaginitis is one of the most frequent causes of pelvic and peritoneal inflammation. Many authors place it in percentage next to abortion and puerperal sepsis, but the frequency of this disease probably depends upon the character of the population in each particular community. The investigations of Noeggerath and the teachings of Tait have thrown a flood of light upon this subject. The fact is that until Tait opened up the realms of abdominal surgery and revealed the true character of the inflammatory diseases of the pelvic organs, very little was positively known of the ravages produced by this disease. Dr. H. W. Longyear of Detroit, Mich., says that latent specific vaginitis produces more cases of pelvic inflammation requiring celiotomy among women of the upper classes than any other cause. There was a time when this disease was thought to be of little importance, but it is now known to be a terrible and oftentimes a fatal scourge among women.

The mismanagement of the third stage of labor I believe to be one of the most fruitful causes of diseases of the reproductive organs. Undue haste in the delivery of the placenta is almost sure to result in leaving fragments of the secundines within the uterus, which may and sometimes do become the source of both present and future trouble. Dr. W. D. Porter of Cincinnati, in an article on the "Third Stage of Labor," says: "Efforts at expulsion of the placenta previous to its detachment are clearly wrong."

About twenty years ago Credé published his method of delivering the placenta, a procedure familiar to us all. Suffice it to say, that it has been grossly abused to the lasting detriment of a large proportion of women, who have been subjected to it too soon after the completion of the second stage of labor. The method scientifically applied at the proper time is a very safe and efficient one. Many physicians, heedless of the results that may be produced by interfering too soon, deliver the placenta before the uterus has regained its impaired contractility, caused by the long and oftentimes violent contractions of the uterus that finally result in the expulsion of the child. The probable results of undue haste in this most important part of the physician's duty, is the retention within the uterus of placental and membranous fragments, which not only cause frequent recurring post partum pains that fret and worry the patient, destroying her rest and protracting her convalescence, but frequently become the source of sepsis which, if it does not end fatally, is almost sure to cause subinvolution, chronic endometritis, metritis, salpingitis, peritonitis, displacements, etc.

Dr. Frank C. Ferguson, in an article published in the *Indiana Medical Journal*, of 1891, sums up the matter as follows: "The complications of incomplete abortions and the retention of fragments of secundines after labor, are primary and secondary. The principal primary complications are, 1, post-partem hemorrhage; 2, septicemia; 3, pyemia; 4, acute puerperal metritis; 5, lymphangitis. Should the patient happily escape these dangerous diseases, the principal secondary complications to which she may be subjected are, 1, subinvolution; 2, prolapsus; 3, versions and flexions; 4, long continued recurring metrorrhagia and menorrahagia, which sooner or later produce profound anemia, leading oftentimes to the development of tuberculosis or other maladies."

I have not attempted to enumerate all the causes that contribute to the ill health of women, but have spoken chiefly of the most prominent causes and those which are to a very large extent preventable. When proper attention is given to the physical training and education of our girls at the time of puberty; when a radical change is made in the social life of the wealthy; when women are thoroughly instructed concerning the evil results of improper dressing, the ill effects of constipation, and the terrible results of criminal abortion, and when physicians are universally held responsible for ill health produced by the accidents of parturition, the mismanagement of labor and the lying-in period, diseases peculiar to women will be far less prevalent than they now are.

BIBLIOGRAPHY.

"Constipation, Especially in Its Relation to Diseases Peculiar to Women." Dr. Andrew F. Currier, Amer. Gyn. Jour., page 737, Dec, 1892.
"The Causation of Diseases of Women." Dr. Charles P. Noble, Amer. Gyn. Jour., page 496, August, 1893.
"The Relation of Gonorrhea to Diseases of the Uterine Appendages." Dr. H. W. Longyear, Amer. Gyn. Jour., page 200, July 1891.
"Some Effects of Blenorrhea in Women." Dr. James T. Jelks, Amer. Gyn. Jour., page 188, March, 1892.
"Importance of Gonorrhea as a Cause of Inflammation of the Pelvic Organs." Dr. George G. Bantock, Amer. Gyn. Jour., page 94, May, 1891.
"Abortion as a Cause of Disease of the Pelvic Organs." Dr. P. F. Chambers, N. Y. Jour. Gyn. and Obst., page 525, May, 1894.
"Certain Forms of Septicemia Resulting from Abortion." Dr. Andrew F. Currier, Amer. Gyn. Jour., page 43, January, 1893.
"The Management of the Third Stage of Labor." Dr. W. D. Porter, Amer. Gyn. Jour., page 51, January, 1893.
"Uterine Diseases Caused by the Management of the Third Stage of Labor." Dr. Frank C. Ferguson, Indiana Med. Jour., September, 1891.

208 N. Alabama St.

ON INIENCEPHALUS.

Read at the Meeting of the Chicago Pathological Society, Dec. 14, 1896.

BY HENRY F. LEWIS, M.D.
CHICAGO.

St. Hilaire defines a monstrosity as a serious deviation from the specific type, complex, apparent on external view and congenital. His classification of anomalies and monstrosities has generally been followed by teratologists since his time. A large family of monsters is characterized by a defective closure of the cranial vault or the vertebral laminæ. There are many varieties according as the defect is in the cranial bones, the spine, both cranium and spine, or parts of each or both. In a large number the brain is entirely wanting or rudimentary. Such are the anencephali or derencephali, the commonest of all, the so-called frog or owl fetuses. In another class the brain is present, although the mal-development of the bones has caused all or part of it to lie outside the cranial cavity. Sometimes the posterior defect is confined entirely or mostly to the vertebral laminæ and we have spina bifida, through the defect in which meningocele usually protrudes. The class in which the brain is wholly or in part outside the cranium is the exencephalian. This is subdivided into those with and those without spinal fissure.

Without spina bifida:

1. Notencephalus; brain largely outside the skull through occipital defect with posterior encephalocele.
2. Proencephalus; anterior encephalocele.
3. Hyperencephalus; podencephalus; cranial defect in vault.

With spina bifida:

1. Exencephalus proper; cranial bones rudimentary and brain lies mostly or entirely outside on the back. The spinal defect may involve a few or all vertebræ.
2. Iniencephalus; considerable or all of the brain is covered by the cranial bones, but the tilting backward of the head makes the margins of the occipital defect come closely in contact with the margins of the spina bifida so that some of the brain lies upon the spinal cord and in the spinal gutter, although covered wholly or in part by the bones of the cranial vault, which act as vertebral laminæ. There may be an encephalocele or not. Ballantyne states three cardinal characteristics of iniencephalus: occipital defect, spina bifida and fetal retroflexion. The dividing line between iniencephalus and exencephalus proper is not absolute and some few cases might be classified differently by different authorities. Taruffi groups iniencephalus, notencephalus and exencephalus proper into one species which he calls "mero-acrania posterio-spinale."

Iniencephalus is a rare form of monster. Isidore Geoffrey St. Hilaire, writing in 1836, says that only three cases had been thus far reported. Taruffi, writing in 1889, says that only about twenty cases had been reported of mero-acrania posterio-spinale. I have collected every case reported in accessible literature, including an exhaustion of the Catalogue of the

Surgeon-General's Office, U. S. A., and the Index Medicus, omitting one case undoubted and one doubtful which I can not find in original or abstract. To these I add one case delivered by myself and two from the museum of Rush Medical College, dissected by me with the assistance of Dr. L. J. Mitchell and with the permission of Prof. Ludvig Hektoen.

The cases recorded below divide themselves into three general classes. The first includes those without protrusion of the brain beyond the box formed by the cranial bones and the open vertebræ. This class may be called *iniencephalus clausus*. The second includes those having a small encephalocele and, with the first, comprises the typical iniencephalic class. The third includes those cases where the occipital opening is large enough to allow the escape of a large portion of the brain. The last two might be called *iniencephalus apertus*. Of the iniencephali clausi I have collected nine cases, viz.: By Fleck[45], Royal College of Surgeons of England[6], Coffin[3], Yocum[9], Landucci[10], Ballantyne[11 2] (two cases), my own case and one from Rush College Museum.

My case is as follows: Primipara, 25 years old, in sixth month of gestation, abdomen enlarged correspondingly, twins, male. One was normal and appeared to be five and one-half months along. This one lived for twenty hours in an incubator. It is 10 inches long, weighs 590 g., has finger nails half out to ends of digits and undescended testes. The second was dead and somewhat macerated, 6½ inches long, weighed 190 g. There was a common placenta and chorion, two amnia and two cords. The smaller twin presented the appearance of great shortening of the back. From back of head to anus is only ¾ inch, while from chin to pubes in front is 4¼ inches. The face looks forward and upward, while the cranium is turned sharply barkward, covering most of the dorsum. The neck is edematous and has no furrow between chin and sternum. The abdomen is very protuberant. Dissection shows the parietals overlying the upper two-thirds of the spinal column. Cutting the fibrinous attachments of the cranial bones to the spine and turning the head forward reveals an extensive spina bifida as far as the second lumbar vertebra. All the cranial bones are normal except the occiput. The basilar portion articulates with the atlas, but the bone broadens out so as to leave a large foramen magnum, which opening is continuous with a large defect in the squamous portion and makes a figure eight with the latter opening. The squamous plates of the occiput are represented only by an acute triangle on either side of the opening articulating anteriorly with the parietal. The margins of the bony defect in the occiput are closely attached to the ends of the widely divergent transverse processes of the cervical, dorsal and first lumbar vertebræ. Thus it will be seen that the spinal canal is covered above by the remnants of the occiput and the parietals which form a sort of roof along the dorsum. At the bottom of the spinal canal lies the cord and over it, contained in the cranium, lies the brain. Thus we have an *exencephalus*, for while the brain does not escape into the outer world, yet it does lie partly outside of the cranium and in the spinal canal. The defect is in the occiput or "inion" and therefore the variety is "iniencephalus."

The cervical spinal column curves downward and forward, making a concavity with the dorsal portion which turns backward under the cranium. The cerebral hemispheres are apparently of normal size.

The first Rush College case is an unmarked specimen without history. Female, Beclard's center in the femur present, nails to ends of digits and otherwise apparently of full term. The length is only 12¼ inches, but the shortness is explained by the marked foreshortening of the back due to the tilting backward of the head. The face looks forward and upward, leaving very little furrow below the chin. There is an opening in the abdomen near the navel, allowing some of the viscera to be outside the body.

Dissection reveals a complete spina bifida to the tip of the coccyx. The cranium extends as far as the lumbar region, attached ligamentously to the transverse processes as in the former case and forming a roof over the spinal canal. There is no encephalocele. There is much lordosis of the cervical spine and right scoliosis of the whole column, so that the ribs are so irregular as to deform the chest. The opening in the occiput consists of a large foramen magnum 1⅝ x 1¼ inches. The width of the spinal cleft is at its maximum 1½ inches. There is slight talipes varus of both feet.

Of *iniencephalus apertus* first come those with small encephalocele. Of this class I have collected eight cases, viz.: By Dugés[12 1], Potthoff[24], Cruveihier,[13 14] Drew and Jackson[15], Lawther[16], Vernier[17], Remfrey[18] and the second case found by me in Rush College.

This last is marked 140 and is without history. Female, toe nails less than half and finger nails two-thirds out to tips of digits; apparently about seventh month.

Beside the usual tilting back of the head and shortening of the dorsum there are two soft tumors upon the back. One protrudes from a bony defect in the skull to the right of the median line and hangs over the right shoulder, measures 2⅜ x 2¼ inches and is shown by dissection to be an encephalocele. In the median line, and occupying the lower two-thirds of the dorsal region, is another tumor covered by membrane and allowing the cleft spine to be felt beneath. It measures one and one-fourth by fifteen-sixteenth inch and is shown by dissection to be a meningocele. The opening in the cranium through which the lateral tumor escapes is between the rudimentary plates of the squamous occiput which, in the form of acute triangles, are articulated with the parietals at the lambdoid suture. The bony defect here is continuous with the enlarged foramen magnum below and forming a figure eight with it. The margins of the foramen lie flat upon the spinal column and are ligamentously attached to the bony margins of the spina bifida. Thus the occiput covers the spinal canal, causing the shortening of the back of the fetus. There is complete spina bifida to the tip of the coccyx, widest under the cranium. There is lordosis of the cervical and kyphosis of the lumbar vertebræ. The axis of the spinal column is also turned to the right in the cervical and dorsal regions (right scoliosis).

Of the third class, namely, iniencephalus apertus with large encephalocele, I have collected five cases, namely: By Hull[20], Gros[21], Budin[22], Rogers[23] and Bonnaire[24]. As in most classifications, the distinction between iniencephali and exencephali proper becomes indefinite at the boundaries. A few cases might, by different authorities, be classed in either category. One such case is reported by Poelman[25], but this seems to be an exencephalus proper with cyclops. Taruffi[3], in the section on mero-acrania

posterior-spinale, mentions ten cases collected by him where the cranial defect was in the occiput. This class he considers synonymous with the iniencephalus of St. Hilaire. Only one of these do I think a true iniencephalus and that is one reported by Hull and already referred to by me. Beside these of Taruffi, I find reference to two whose original reports I am unable to find. One is a specimen depicted in Ahlfeld's Atlas[5] and shows a skull with enlarged foramen magnum, therefore may be iniencephalus or notencephalus. Vrolik[32] also depicts a skull with similar defect, but further particulars are wanting. St. Hilaire states that one of the three cases of iniencephalus reported up to his time was by Burkhardt[36] but I can nowhere find original or abstract of the latter's article.

A résumé of the twenty-two cases collected by me shows a few interesting facts. In all cases there was a marked tilting back of the head and extension of the cranium on to the dorsum. The rhachischisis extends to the sacrum or farther in ten cases, to the last dorsal in two, to the middle dorsal region in four, through the cervical region in three and not stated in the rest. Anterior spina bifida in two, diaphragmatic hernia in four, hydramnios in six, club foot in three, hydrocephalus in one, umbilical hernia in one, celosomia in two, deformities or displacements of the alimentary tract in eight, myelocele in one. In one the external oblique took an origin from the clavicle and in another the gluteus maximus from the occiput. Four were born living, seven dead and the rest not stated; two were male, seven were born of primiparæ, four of multiparæ and the rest not stated. Only twice is it stated that there was twin pregnancy, in seven not stated and in the rest the language would imply single births.

The group of monsters exhibiting cranio-rhachischisis is a numerous one. Anencephalus occurs once in 7,143 births[37] and about two-thirds are female[38]. Of the exencephalians the least rare is notencephalus; the proencephali are rather more rare and the podencephali rarest in the human species but common among animals. The exencephali proper and iniencephali are both very rare, the latter the most.

There are two important sets of views as to the etiology of such monstrosities. The pathologic theory explains the anomaly by disease of the fetus itself acting early in its history and depending for the different forms of anomaly upon the date of beginning.

The embryologic theory now held by the majority of authorities, explains malformations by arrest of development, usually from pressure at an early embryonic period. Dareste[44] considers the cause to be pressure and adhesion of the amnion to the tissues developing beneath it. He experimented with the eggs of birds, chiefly by unequal heating of different parts of the egg during artificial incubation, and was even able to a certain extent, by varying the point of greatest warmth, to produce different forms of monster at will. The arrest of development of the amnion, consequent on his treatment of the egg, modified the evolution of the different parts of the embryo by the compression it exercised upon them. The cranio-rhachischisic monsters he took to arise from compression and adhesion of the cephalic hood of the amnion which tended to shorten and flatten the cerebral vesicles.

Curious and interesting tales are told by ancient and medieval writers about all sorts of possible and fabulous monsters, but teratology practically begins with St. Hilaire in the first half of the nineteenth century. His classification of monsters and anomalies remains satisfactory to almost all the wants of teratologists today. Later teratologists have devoted themselves to the etiology of the subject, as is evidenced especially in the experimental work of Dareste and his followers. The fields for experiment as well as for observation are relatively so small that the advance has been also small, still much has been and is being done. Teratology is pathologic embryology and the advance of the former must depend largely upon that of the latter. Although experiment will in the future, as in the past, do much to clear up these obscure problems, yet we will continue to be largely dependent upon careful descriptions of carefully made dissections.

(For discussion see Society Proceedings, page 417.)

BIBLIOGRAPHY.

1. Isidore Geoffroy St. Hilaire: Histoire des Anomalies, etc., Paris, 1836.
2. J. W. Ballantyne: Teratologia, October, 1895, p. 287.
3. Cesare Taruffi: Storia della Teratologia, Bologna, 1889.
4. Fleck: In spinam bifidam ejusque genesin, etc. In. Diss. Breslau, 856.
5. Ahlfed: Die Missbildungen des Menschen, and Atlas, Leipzig, 1880.
6. R. Thompson Lowne: Des. Cat. of the Teratol. Series in Museum R. S. C. of England, London, 1872, p. 68.
7. Camille Dareste: Recherches sur Production artificielle des Monstr. Paris.
8. Coffin: Trans. Obstet. Soc. Lond., 1882, p. 98.
9. C. A. Yocum: Hahn. M., November, 1890, p. 773.
10. Francesco Landucci: Annali di Ostet. e Ginec., Milano, 1893, p. 251.
11. J. W. Ballantyne: Teratologia, April, 1895, p. 87.
12. Duges: Mem. sur les alterations intra-uterines de l'encephale et de ses enveloppes.
13. Jean Cruveilhier: Anat. Path. du Corps Humain, Vol. I, liv. xix, 1836.
14. F. A. von Ammon: Die angeborneue chir. Krankh., Berlin, 1842. B. iv.
15. J. B. S. Jackson: Desc. Cat. of Mons. in Cabinet of Boston Soc. for Medical Improvement, 1847, p. 30.
16. George Lawther: Obst. J. Grt. Brit. and Ire., 1880, p. 335.
17. Vernier: Gaz. med. de Picardy, 1885, p. 167.
18. L. Remfrey: Trans. Lond. Obstet. Soc. 1894, p. 227.
19. J. Z. Lawrence: Tabular Analysis of Seventy-five Cases of Encephalocele, Med. Chir. Trans., 1856, p. 307.
20. Hull: Mem. of the Lit. and Phil. Soc. of Manchester, V. pt. ii, 1802, p. 495.
21. Gros: Comptes rend. du Soc. med. de Lyon, 1878, p. 151.
22. P. Budin: Obstet. and Gynec., c. xii, 1886, p. 237.
23. Fred. T. Rogers: Trans. Rhode Is. Med. Soc., 1888, p. 448.
24. E. Bonnaire: Arch. de Tocol. et Gynec, Paris, 1892, p. 275.
25. C. Poelman: Bull. Soc. de Med. de Gand., 1862.
26. Solomon Reisel: De cerebello extra cranium post terrorem gravidæ a fele imposito, Miscellanea Curiosa, etc., Annus ii, Norimbergæ, 1683.
27. G. G. Dethardinq: Nova Acta Physico Med. Acad. Leopold. Carol. Nat. Curios., Tom. x. Bonnæ, 1821, p. 705.
28. Marye: Arch. gen. de Med., Paris, Tom. iv, 1827, p. 879.
30. Francesco Scavone: Atti della Accad. Gioenia, Vol. ii, 1827.
31. Luigi Calori: Nove Comment. Acad. Scient., Tom. vii, Bononiæ, 1844.
32. W. Vrolik: Tabulæ ad illustrandam embryogenesin, Amsterdam 1849.
33. V. Castellani: Un Monstro Umano, Bull. delle Soc. Med., Bologna, 1856.
34. Gallez: Bull. de l'Acad. R. de Med. de Belg., 1868.
35. Carl E. Stein: Ein Fall von Hæmicephalie, etc., Thesis, Marburg, 1879.
36. Burkhardt: De Monstro Humano Notabile, Diss. Freiburg, 1825.
37. Puech: Des anomalies de l'homme, etc.
38. Lallemand: These de Paris, 1818.
39. Adolph W. Otto: Monstrorum sexcent. Descriptio Anat., 1841.
40. L. H. Bentkowski: Etude sur une monstre exenceph., These de Montpellier.
41. Foerster: Die Missbildungen des Menschen, p. 4.
42. E. Lancereau: Traite d'Anat. Path., Paris, 1875.
43. Princeton: Progres de Teratol. depuis St. Hilaire, These, Paris, 1886.
44. Camille Dareste: Comptes rend. de Acad. des Sciences, 1882.
45. Camille Dareste: Comptes rend de Soc. de Biol., Paris, 1 894, p. 757.
46. John Cleland: Memoirs and Memoranda in Anat., Vol. i, p. 127.
47. Ambrose Pare: Deux Livres de Chirurgie, 1578.
48. C. Wallreich: De Monstris, 1655.
49. Joh. Kalinkius: De Monstris, 1647.
50. Georg. Stengelius: De Monstris et Monstrosis, 1647.
51. Jean Palfyn and Mauriceau: Traite de Monstres, 1708.
52. Schlemm: Ref. by Buettner: Diss. sistens Hydroencephaloceles casum singularem. Berlin, 1832.
53. David L. Booth: Kansas City Med. Recorder, 1892.
54. Potthoff: Descriptio casus rarissimi spinam bifidam totalem sistens, In. Diss., Berlin, 1827.

A New Tapeworm.—In the journal of the College of Science of the Imperial University of Tokyo, Professor Ijimi of Tokyo, and Professor Kurimoto of Nagasaki, describe an enormous tapeworm which they denominate "bothriocephalus sp." It measured 10 meters in length and 25 millimeters in breadth at the broadest portion. Its expulsion was brought about with a dose of extract of male fern.—*New York Medical Journal.*

TUBERCULOSIS—INFECTION THROUGH MILK AND THROUGH BAD SANITATION.

Read before the Iowa State Medical Society, April 15, 1896.

BY W. E. HARRIMAN, B.S., M.D.

PROFESSOR OF PATHOLOGY, HISTOLOGY AND PHYSIOLOGY AT IOWA STATE AGRICULTURAL COLLEGE,

AMES, IOWA.

In the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION of Feb. 8, 1896, Dr. Edward F. Wells of Chicago announced the proposition that pulmonary tuberculosis is declining in prevalence, and supported the assertion by some very complete and carefully compiled statistic tables. These statistics seem authentic and it is hard to doubt the conclusions; yet our journals and periodicals in general are filled with startling statements of its prevalence.

Dr. J. Collins Warren, professor of surgery in Harvard University, says that tuberculosis probably affects more people than any other form of infectious disease, and estimates that one out of every five deaths is due to this disease.

Professor Law of Cornell University is quoted in Vol. xviii of *The American Veterinary Review*, as having said: "If the 5,490 deaths from tuberculosis which occur every year in the city of New York could be brought together in an epidemic lasting but one week, no smallpox, cholera or yellow fever scare would approach the panic which would thus be created."

From various statements we glean that the average ratio of deaths in the human family from tuberculosis, to the total mortality, is about 14 per cent., while in some localities it reaches as high as 40 or 50 per cent. Professor Law says "if we take the whole civilized world and compare with the tuberculosis mortality all the accumulated deaths from war, famine, plague, cholera, yellow fever and smallpox, we find that the latter wanes into comparative insignificance."

These astounding statements from men of national reputation, must carry no inconsiderable weight. Such appalling mortality as is here depicted enlists our interest in a search for the potent causes, and we find that it is a disease both of man and lower animals; that it is communicable from the one to the other; in fact, that it is intensely infectious, and in a plain sense contagious; that the conditions under which conveyance and transmittance of the infection occur, are numerous and variable in the extreme, and that once contracted it is terribly fatal. These complex conditions unite to cause the high mortality.

Of the various avenues whereby the tubercle bacilli gain entrance to the human economy, one of great importance is via the gastro-intestinal route.

As has been said, the disease is communicable from man to the lower animals and *vice versa*. Of all the lower animals, cattle are the most commonly affected; especially is this true of milch cows, and although Sims Woodhead finds some difference in the vital pathogenic characteristics of the two bacilli, recent investigation proves that bovine tuberculosis, or *Perlsucht* as the Germans call it, and human consumption are identic.

Fleming in his "Manual of Veterinary Sanitary Science and Police," in speaking of its geographic distribution among animals says: "Tubercular phthisis or tuberculosis probably prevails among the domesticated animals over the entire globe." In Mexico 34 per cent. of the animals slaughtered for food are found to be tubercular. In Europe and England it is extensively present and has long been recognized as a common disorder among animals.

In the United States it is prevalent from shore to shore. Dr. Simonton in an article in the San Jose *Mercury* of January, 1896, states that 15 per cent. of the cattle in California are infected, while reports by the Cattle Commission of Massachusetts give the percentage in that State variously from 8 to 35. From results of tuberculin tests thus far made, the percentage in Iowa is from 12 to 14. We can safely put the average throughout the United States among cattle from 5 to 12 per cent.

Hence the question of infection of man through animal products assumes a colossal importance. Of all the animal products milk, being used so extensively in the raw state, is by far the most dangerous.

In the report of the Royal Commission on Tuberculosis in the *American Journal of the Medical Sciences*, September, 1895, experiments are reported in which pigs, guinea pigs and rabbits were fed on uncooked milk from tuberculous animals, and the disease was thus caused in a very large percentage of subjects used. Control experiments with animals kept under similar conditions but which received no tuberculous food, gave negative results. The uncooked food produced the disease in all of eight pigs, all of five cats, fifty-six out of eighty-four guinea pigs and eight out of ten calves that were fed with it. Prof. W. M. Late Coplin of Vanderbilt University, Nashville, Tenn., reports experiments with similar results. Dr. Palmer of Massachusetts reports equally conclusive tests. In experiments made at our Iowa Agricultural College over 60 per cent. of the animals fed upon the condemned milk contracted the disease.

In the human race it is known that children are most frequently affected with intestinal tuberculosis, and the *American Veterinary Review* of December is authority for the statement that over half the deaths of bottle fed children in cities are due to tuberculosis.

From all the above statements, we must conclude that the possibility of milk from tuberculous animals containing the infectious elements is undeniable.

It has been stated that only those cows having tuberculous udders are capable of producing bacilli in the milk. The unfortunate fallacy of this is shown by one of an exhaustive series of experiments conducted by the trustees of the "Massachusetts Society for the Promotion of Agriculture," quoted by Drs. Stalker and Niles in Bulletin No. 29 of I. S. A. C. Exp. Station, published in November, 1895; twenty-one healthy calves were fed on milk from tuberculous cows. At the conclusion of the experiment they reported: "Of the twenty-one animals, eight, or over 33 per cent., were shown to be tuberculous. That the cows from which milk for these feeding experiments was derived were free from tuberculosis of the udder is shown by an appended table of their history, and the results of the postmortem."[1]

I am prone to believe, with the above society and Drs. Stalker and Niles, that "with the evidence here presented it is undeniable that milk from tuberculous cows with no appreciable lesion of the udder may, and frequently does, contain the bacilli of the disease."

Hence it is seen that milk from cows affected with the disease to any extent, whether the udders appear diseased or not, is very apt to contain the bacilli (and as a matter of fact, differential diagnosis during life

[1] Table not inserted with this article.

between tuberculosis of the udder and simple mastitis is often impossible).

When we consider the wide-spread prevalence of the disease among cattle, and the practically unrestricted public distribution of milk, and the enormous quantities yearly consumed in the raw state, we do not wonder at the high rate of mortality in the human race.

Sanitary science includes a consideration of all that can be done for the prevention of disease and promotion of the public health. The application of rules and enforcement of laws promulgated by this science is known as sanitation. If the sanitary rules are not rigidly applied, or the laws are disregarded, we have unfavorable or bad sanitation. The negligence shown in permitting the spread of tuberculosis by infected milk is bad sanitation. But more commonly we look upon the expression "bad sanitation" as meaning some condition of improper or inefficient sewerage or other menace to public hygiene.

The hygienic environments and state of sanitation have much to do with the tuberculosis problem, in so much as bad sanitation causes a lessened state of health and vitality, and hence renders the body easily invaded. Furthermore, conditions of filth and moisture, and decaying organic matter, such as is afforded for example, in some of the dark, damp, illy ventilated tenement houses of cities, are very favorable to the life and thrift of the tubercle bacillus.

No condition of bad sanitation can actually originate *per se* the germs, but various conditions of unfavorable sanitation are conducive to activity of the infection, which conditions, combined with some special predisposition on the part of the individual, result in his ultimate infection.

Perhaps the most frequent manner of infection in the human species, even more so than via the gastro-intestinal route, is by inhalation of bacilli in the air, containing the dust of dried sputum expectorated unrestrictedly by tuberculous individuals. In the same manner, and from the same cause, public berths in sleeping cars and ships, cabs and other public conveyances are especially dangerous. Another source exists in use of contaminated water supplies, public baths, water closets, etc.

The practice of dealing in second hand articles, particularly clothing, is an especial menace to those so engaged. Along this line the Iowa *Health Bulletin* of November, 1895, calls our attention to the matter of infection through the sale and use of bed mattresses made of old rags.

The common procedure among children in our public schools, of cleaning the slate by fingers moistened in the mouth, and passing the slate to the next neighbor to repeat the operation, is one especially calculated to spread such a disease as tuberculosis.

The sale of tuberculous meat and of fruit which has been exposed to street winds and bacillus-laden dust are also matters of no mean magnitude in the spread of the disease.

In fact this disease has been transmitted from man to man, man to animal, animal to animal, animal to man, from place to place, until it would seem that man's life continues at constant hazard, and his survival is a momentous marvel.

Indeed, I believe were it not for that mysterious something within us, which Sternberg has termed partial immunity or "natural resistance," the already high mortality must needs be multiplied many times. For the conditions have now become such that no doubt many of us inhale or ingest tubercle bacilli every day of our lives, while only those hereditarily predisposed, or in whom natural resistance is at a low ebb, become favorite seats for the development of the germ.

Woodhead has summed up these conditions necessary for infection as follows:

1. The presence of the bacillus tuberculosis in such a position and for such a length of time that it obtains a coign of vantage, so to speak, from which to attack the tissues of the body.

2. Some weak point in the epithelial surface, made by disease, or due to irritation or bad food, by which the organisms may attack the deeper tissues in sufficient numbers to insure their being able to hold their own in the struggle for supremacy that ensues.

3. The comparatively low vitality of these deeper tissues brought about by imperfect nutrition or irritation, the cells of which they are composed being no longer able to deal successfully with any large number of bacilli that can, under ordinary circumstances, find their way thus far.

Much has been done in various parts of the country toward controlling and preventing the spread of this disease, and our literature today is replete with conflicting plans for its complete eradication. A résumé of what has been accomplished and a discussion of the floods of contributions to our literature, on the subject, would be of intense interest and profit.

CHURCHILL'S METHOD APPLIED WITH SUCCESS IN FORTY-FIVE CASES OF PHTHISIS PULMONALIS.

BY T. BLANK, M.D.

ST. LOUIS, MO.

Too little attention is paid to "Churchill's method" of treating consumption, although it is still the best method, and if well studied and rightly applied will result in a cure in a great many cases. We can not expect much good from it at the last moment; it must be applied early. In the incipient stage and in the beginning of the cavernous stage, ninety cases out of a hundred can be cured by the Churchill method. But the physician, in order to succeed, must study it closely. He must be a good observer, otherwise he will fail or do harm. The Churchill method depends upon phosphology; if there is a decrease of molecular or intra-organic combustion, due to want of phosphid (oxidizable phosphorus) element in the bioplast (or bioplasmic principle, as Churchill calls it), then the tissue breaks down and the soil for the tubercle bacilli is prepared.

That the tubercle bacillus is the cause of tuberculosis no scientific man will deny. But considering the wide distribution of the tubercle bacilli and the many chances for infection, it is really wonderful that so many escape the disease. Koch himself drew attention to the slow growth of the tubercle bacilli, so that in many cases they are eliminated before they have gained a foothold.

Now we come to the point. What is the condition that favors a foothold of the tubercle bacillus?. It is the deficiency of the phosphid (oxidizable phosphorus) element. If this element is not present in sufficient quantity in the tissue the oxygen we inhale with the air is not utilized to the fullest extent, owing to a lack of oxidizable phosphorus in the organism

which, acting by its chemic affinity, is necessary to secure its combination with the proximate principles of the blood and instead of normal bioplasmic material being produced, a broken down tissue is substituted—the soil for the tubercle bacilli. The Churchill method supplies this oxidizable phosphorus in the form of chemically pure hypophosphites.

It is really astonishing to see patients improve all around and gaining from one to two pounds per week by supplying the long-needed oxidizable phosphorus, a regular godsend as a drink of water would be to a dying man in a desert.

But the improvement consists not only in gain of weight, cesssation of cough, night sweat, fever, etc., but in the lungs a process is taking place most interestingly. Dead cells, broken down tissue, millions of tubercle bacilli are expectorated, while under the influence of hypophosphites new normal bioplasmic tissue is formed, tissue which will resist the bacilli until the last one is expectorated.

I have made repeated microscopic examinations of cases, discharged as cured, and could not find a single tubercle bacillus; they were gone, though plentiful at the beginning of the treatment.

Churchill used the hypophosphites of soda, lime and quinia. He never combined any of these. He gave but one salt at a time, because each salt has a different action. For instance, in the incipient stage and in the second stage, where the expectoration is tight and the cough troublesome, the hypophosphite of soda is indicated, because it favors expectoration and clears the lung of dead tissue, but watch it closely; if expectoration is too free that means too rapid softening of the tubercular deposit, and then the lime salt must be given. The lime salt reduces expectoration and softening, as in Case No. 23, where the expectoration was reduced from a pint and a half per day to only a few tablespoonsfuls in measure. The action of these different salts is so distinct that it vexes me each time I see an advertisement of syrup of hypophosphites of soda and lime together, claiming to be according to Churchill. Such statements are false; Churchill never used these salts in combination in this disease.

The hypophosphite of quinia is given in the initial treatment of far-advanced cases, and later on soda or lime salt is given according to indications. Why is it that the brilliant results obtained by Dr. J. F. Churchill in the Parisian Hospitals are not generally obtained? This is due to several causes. 1. Most of the commercial hypophosphites are not chemically pure, therefore valueless. 2. If the chemically pure hypophosphite salt is not incorporated with pure syrup immediately after its manufacture it will be rapidly injured by age. 3. Many physicians have given a combination of different hypophosphite salts, believing that they apply the Churchill method. This is the most frequent cause of failure.

Of the forty-five cases I have treated within the past three years, I have given, at the conclusion of this paper, the history of the most important, barely mentioning, for want of space and because it would be tiresome to the reader, those, the history of which has been similar or identical with those published in detail.

I will say that the wonderful success which has resulted from my use of the Churchill method in this disease has so convinced me of its worth that I shall continue its use until, as I trust, we shall be able to cure 99 cases out of 100.

Before closing let me express my sincere gratitude to R. W. Gardner, New York, who does so much to spread the teachings of Churchill.

Case 1.—Mr. John W., East St. Louis, Ill., age 20 years; date of consultation June 19, 1893.

History: For about a year has complained of a cough, dry and hacking in the beginning; expectorated blood some months ago; lost considerable in weight during the last few months; there have been night sweats, but not severe; appetite failing.

Examination of lungs: Infra-clavicular region in left side sunken; inspiration in this region rough with dry râles; expiration blowing (bottle sound); on right side, same condition; percussion, cracked-pot sound. Microscopic examination of sputum (made June 23) showed tubercle bacillus.

Treatment: Syrup hypophosphite of soda (Gardner), half teaspoonful, t. i. d., after meals.

Report, July 1, 1893: Patient feels stronger already; expectoration not much increased; continued syrup soda, same doses; gave eight fluid ounce bottle.

Report Sept. 2, 1893: Patient has been in Kansas City; accepted work there, as he felt strong enough to do so; has gained in weight; appetite good; during the last two weeks of August, cough disappeared entirely, but now there is some cough again, continued syrup of soda hypophosphite, half teaspoonful, t. i. d.

Report, Sept. 9, 1893: Patient still gaining in weight; sleeps better than ever before; no night sweats; appetite good; very little cough; continued syrup of soda hypophosphites, 20 drops, t. i. d.

Report, Oct. 3, 1893: Patient is doing nicely; still gaining in weight; total gain since the beginning of treatment, twenty-five pounds; no cough nor expectoration; discontinued the syrup soda hypophosphite.

Report, Dec. 12, 1893: Patient at office again; intends to go West to accept work; as a matter of precaution he wants to take a bottle of medicine along, but as he has felt so well since October he thinks he will not have use for it.

Remarks: I have not seen the patient since the date of last report, but from patients whom he has sent I have heard that he came back from the West and is living in East St. Louis again, in good health. The last indirect report I received about him was in 1894, the exact date I have not recorded.

Cases Nos. 2 to 9, inclusive, were so similar in their general characteristics and history that I have not considered it necessary to give a detailed account of them. The were all in their general features duplicates of Case No. 1. The tubercle bacillus was found in every case, at the beginning of treatment, by microscopic examination; indeed I do not diagnose a case of consumption until I find the bacillus present.

Case 10.—Miss A. L. B., age 21 years; date of consultation, June 5, 1894.

History: Since February, this year, patient has been suffering with amenorrhea; lost rapidly in weight, six pounds in as many weeks; all last winter patient suffered with cough, dry at the beginning; now there is expectoration with little cough effort; expectorates small lumps, as she expresses it.

Examination of lungs: Left and right supra-clavicular region affected; on both sides, expiration blowing (bottle sound); inspiration rough, rolling, with moist râles; right and left infra-clavicular regions show dulness on percussion; inspiration in those regions rough, with dry râles (but very fine). Microscopic examination of sputum showed tubercle bacillus.

Treatment, June 7, 1894: Syrup hypophophite of soda (Gardner), half teaspoonful, t. i. d., after meals.

Report, June 18, 1894: Expectoration slightly increased; thinks she feels somewhat stronger but not much; decreased the dose of syrup hopophosphite of soda to 20 drops, t. i. d.

Report, June 28, 1894: Patient feels stronger; sleeps well; appetite is increasing; coughs very little; the expectoration is brought up with very little effort; she no longer notices lumps in the expectoration; same treatment continued.

Report, July 15, 1894: Has gained one pound in weight; feels strong; appetite good; hardly any cough; expectoration just as I want it; continued syrup hypophosphite of soda, 20 drops, t. i. d.

Report, Aug, 7, 1894: Patient looks well; has gained another pound since the last visit; there is a little lassitude; discontinued syrup hypophosphite of soda on account of this.

Report, Aug. 27, 1894: The lassitude has not left her; close examination shows that she had a chill about a week ago; fever followed the chill; some sweat after the fever had left

her; since then she felt chilly and feverish, off and on: headache; sleepy during the day; loss of energy; slight cough again; diagnosis, malaria; gave quinin solution.

Report, Sept. 5, 1894: Feels better; has not been feverish in last few days; feels no longer sleepy during the day; no headache; continued quinia in smaller doses and added Fowler's solution.

Report, Sept. 15, 1894: There are no longer symptoms of malaria; coughs very seldom; hardly any expectoration; discontinued all medication; gave order to report again in two or three weeks.

Report, Oct. 8, 1894: Expectoration a little tight; appetite fair; no symptoms of malaria have reappeared; continued syrup soda hypophosphites, 20 drop doses, t. i. d.

Report, Oct. 20, 1894: Expectoration no longer tight; appetite fair; no symptoms of malaria have reappeared; continued syrup hypophosphite of soda, same dose; gave order to discontinue the medicine for a week if expectoration should get too free.

Report, Nov. 25, 1894: Patient has regulated the medicine according to the condition of the expectoration; there is now neither cough nor expectoration; has gained four pounds since the last time she was weighed; syrup hypophosphite of soda, 6 fluid ounce bottle, dose 20 drops, t. i. d. Gave order to commence with the medicine in about a week from now; take it for one week, every day; then every other day.

Report, Feb. 23, 1895: Patient has not taken any medicine for about two months; has some of it on hand yet; no cough nor expectoration; feels better than for years.

Remarks: Patient is married. I treated her husband in the latter part of November, 1895, for indigestion, etc. Says that his wife has not been sick since she saw me last. "If he only had her stomach he would not suffer with indigestion," was one of his remarks. I have not heard of the family since then.

Cases Nos. 11 to 22 inclusive, are all similar to case 1, and are not reported in detail. The tubercle bacillus was found by microscopic examination in every one of these cases, at the commencement of the treatment. The examination for the bacillus was not regularly made at the close of the treatment, as it would involve some expense to the patient, and it seemed unnecessary, as they were feeling well. One of the cases where the bacillus was plentiful at the beginning of the treatment, showed a very few bacilli after some months' treatment.

Case 23.—Mr. J. B. W. History: Patient has had a cough for about two years, dry and hacking in the beginning; later it commenced to get loose, and patient coughed up lumps of a greenish, yellow color: soon commenced to lose flesh. For the last six months, severe night sweats; shortness of breath for about a year; feels very weak; coughed up blood, off and on, within the last year; had a severe hemorrhage eight months ago; the last hemorrhage, fourteen days ago. Cough very troublesome during the night; no appetite; fever in the evening. Examination of the lungs: Both apices affected. On left side, infra-clavicular region, a large cavity; blowing hollow sound on in- and expiration; cracked-pot sound on percussion, very distinct. The tubercular process has extended to the pleura, and the result is a very painful "tubercular pleurisy." Microscopic examination of sputum showed tubercle bacilli. Treatment, June 5, 1894: Syrup hypophosphite soda (Gardner), half-teaspoonful doses, t. i. d., after meals.

Report, June 15, 1894: Patient's appetite a good deal better; feels stronger and better all around; sleeps better too; has coughed no blood; those severe and painful pleuritic pains have disappeared entirely, and that is the reason, as patient thinks, that he sleeps so nicely now; expectoration amounts to about a half-pint, during twenty-four hours. Gave this time, syrup hypophosphite of lime (Gardner), half-teaspoonful, t. i. d., after meals.

Report, June 25, 1894: Feels twice as strong as he did at the last call; appetite very good; sleeps well; expectoration reduced from a half a pint, to about two tablespoonsful in twenty-four hours; patient is certain that it is not more; those pleuritic pains have not reappeared, which patient seems to appreciate more than all the other improvements. Same treatment continued.

Report, July 5, 1894: Patient has been taking medicine just thirty days; feels well and strong; sleeps well and appetite is fine; has gained three pounds since he came under treatment; expectoration gets a little too dry, therefore, changed the medicine. Syrup hypophosphite soda, dose 20 drops, t. i. d., after meals.

Report, August 15, 1894: Has been without medicine for four weeks. Felt well and strong all that time; in fact, he felt so well that he considered wood-sawing in his yard the best thing to kill time. A slight hemorrhage followed ten minutes' work; expectoration about four tablespoonsfuls again; changed medicine immediately. Syrup hypophosphite lime (Gardner), dose 20 drops, t. i. d., after meals.

Report, August 25, 1894: Expectoration amounts to about two tablespoonsfuls during twenty-four hours. Same treatment continued.

Report, Sept. 15, 1894: Patient has gained four pounds in addition to the three pounds gained up to July 30. Expectoration about one and a half tablespoonsfuls during twenty-four hours. Syrup hypophosphite lime, 20 drops, three times every other day.

Report, Sept. 30, 1894: Patient doing nicely. Same treatment continued.

Reports up to June, 1895, a year after commencement of treatment, are so monotonous, that I leave them out.

Report, July 15, 1895: Patient at office again; will leave for Colorado in a few days, and wants two large bottles of the medicine; gave him syrup of hypophosphite of soda, 12 ounce bottle, and syrup hypophosphite of lime, 12 ounce bottle. Being under treatment so long, he knows exactly when to take each, according to the amount of expectoration.

Received a letter about a month later. Therein patient states that he felt fine, and has the greater part of the medicine on hand. Through his uncle, I heard that he got careless, on account of feeling so strong and well, and exposed himself to unnecessary risks, and had, in the beginning of 1896, a relapse. He did not come under my treatment again; why, I do not know. He died a few months after the relapse.

Cases Nos. 24 and 25 are so similar to others given, that they are omitted.

Case 26.—Miss W. J. A., age 27; date of consultation, July 15, 1894. History: For four years patient has suffered with cough, which was dry and hacking during the first year; had severe night sweats last winter; lost in weight, especially within the last few months; had also a hemorrhage last fall; feels very tired, weak and worn out; fever in the afternoon, and taward evening; headache quite frequently; glands of the neck enlarged; shortness of breath; weight 110 pounds.

Examination of the lungs: On left side, infra-clavicular region, a circumscribed catarrhal area; on right side, infra-clavicular region, a large cavity. Microscopic examination of sputum showed tubercle bacilli, in great numbers. Treatment, July 16, 1894: Syrup of hypophosphite soda (Gardner) dose one-half teaspoonful, t. i. d., after meals.

Report, July 23, 1894: Patient looks better; on some days she felt really "good": there is fever every evening, without chill preceding. But about two, and sometimes three times a week, she gets a severe chill, and a higher fever than usual follows. There is no doubt that we have to do with two kinds of fever, one a "hectic fever," and the other a "malarial fever." She feels also an aching in the joints, bones and muscles, before the malarial fever appears. Gave quinia in solution; discontinued syrup hypophosphite soda.

Report, July 26, 1894: Patient feels a great deal better, after taking the quinin mixture. Continued quinia mixture, to be taken every other day. On the days between, continued syrup hypophosphite soda, half-teaspoonful doses, t. i. d., after meals.

Report, August 7, 1894: Feels well and stronger than before; long walks no longer exhaust her; during the last few days, the cough is more frequent, and somewhat dry. Increased the dose of syrup hypophosphite soda, to 40 drops, t. i. d., after meals.

Report, August 14, 1894: Patient feels stronger than at the last visit; cough is still very troublesome; expectoration amounts to about four tablespoonsfuls during twenty-four hours. Changed to syrup hypophosphite lime (Gardner), 20 drops, t. i. d., after meals.

Report, Sept. 1, 1894: Patient has been without medicine for ten days. During all that time she felt well; cough and expectoration diminished; her strength is not quite as good as when she is under the influence of the medicine but nevertheless she feels 10 per cent. stronger than eight weeks ago. Syrup hypophosphite soda (Gardner), half teaspoonful, t. i. d., after meals.

Report, Sept. 10, 1894: Feels stronger since she has taken the medicine; cough very moderate, and not troublesome. Same treatment continued.

Report, Sept. 22, 1894: Patient feels well; expectorates very little during the day; only in the morning, and that does not

amount to much; gained five and a quarter pounds since the beginning of treatment; present weight, 115¼ pounds.

Patient lost weight during the first few weeks; my books give no record of this, but I remember the case well. Gave syrup hypophosphite soda, half teaspoonful, t. i. d., after meals.

Report, Oct. 14, 1894: Has been doing nicely all that time; during the last few days she complains of pleuritic pains; hardly any cough; has gained two pounds more; present weight, 117¼ pounds. Syrup hypophosphite soda, same dose and mustard plaster to the chest.

It would make the report too lengthy to continue the record. Patient took the hypophosphites steadily up to August, 1895, that is, a little over a year, counting from the day of first consultation. From August, 1895, she took the hypophosphites only occasionally. During the year 1896, she called several times at my office feeling generally well, and working every day. The least little cough, or loss of strength, was always promptly attacked with a bottle of syrup hypophosphite, and the battle ground was ours in a day or two.

It was a hopeless case of four years' standing, with a large cavity already formed, as it came under my observation. As I saw her last, I could not help thinking about "then and now."

The cases Nos. 27 to 45 inclusive, were similar in their general features to case No. 1. It would be tiresome to give the histories of them in detail. The cases I have outlined are fairly typical of the others, and my favorable experience in the past, is now continually being repeated, as new cases come under my care; all progressing well, and may form the subject of another contribution in the future. There can be no uncertainty concerning the diagnosis; every case was established beyond a doubt by the detection of the tubercle bacillus.

A BRIEF REPORT OF THE RESULTS OF A BACTERIOLOGIC INVESTIGATION OF THE NASAL MUCUS IN ONE HUNDRED CASES OF CHRONIC NASAL DISCHARGE.

WITH SPECIAL REFERENCE TO THE PRESENCE OF THE KLEBS-LÖFFLER BACILLUS.

Read before the Philadelphia County Medical Society, Jan. 27, 1897.

BY EUGENE LARUE VANSANT, M.D.

Professor of Diseases of the Throat and Nose, Philadelphia Polyclinic; Laryngologist and Aurist to the Howard Hospital, etc.

PHILADELPHIA, PA.

Although a full report of the following investigations will be published later, still it may perhaps be of interest to those who are present this evening to hear a brief report of the results obtained. The patients included in the investigation all had one thing in common, namely, a chronic nasal catarrh; none of them were subject to any acute febrile affection, but were simply the walking cases that I see daily in my office and at my service in the Polyclinic and Howard Hospitals. Great care was exercised in their examination to exclude all those showing any of the well known clinical signs of diphtheria. The bacteriologic examinations were made by Dr. W. J. Gillespie, and in the more important cases afterward reviewed by myself. The examinations embraced 113 cultures of specimens taken from 100 different patients. Of these patients, twenty-five suffered with chronic atrophic rhinitis, thirty-one wtth chronic hypertrophic rhinitis, fourteen with chronic rhinitis, sixteen with chronic purulent rhinitis, seven with nasal syphilis, two with disease of the accessory sinuses, four with acute rhinitis, one with fibrinous rhinitis.

The bacteriologic examination shows the presence of diphtheria bacilli in no less than thirty of the cultures examined, these cultures representing the discharges found in twenty-six different patients. In four additional cultures (obtained from three patients) organisms strongly resembling diphtheria bacilli were present. In fifty-eight cultures, staphylococci were found. Of these, seven were recognized as staphylococcus aureus, five as staphylococcus albus, one as staphylococcus citreus. The great majority of the cultures contained many diverse forms of organisms, such as bacilli, cocci, diplococci, etc. Leptothrix was found in four, bacillus subtilis in six and yeast cells in two of the cultures.

Of the twenty-six patients with diphtheria bacilli in their nasal secretions, eleven were cases of chronic atrophic rhinitis, three were cases of chronic purulent rhinitis, five were cases of chronic rhinitis, three were cases of nasal syphilis, one was acute rhinitis and three were cases of hypertrophic rhinitis. For each disease examined the proportion of cases with diphtheria bacilli was as follows: Eleven in twenty-five cases of atrophic rhinitis, three in sixteen cases of chronic purulent rhinitis, five in fourteen cases of rhinitis, three in seven cases of nasal syphilis, one in four cases of acute rhinitis, three in thirty-one cases of hypertrophic rhinitis, none in two cases of accessory sinuses, none in one case of fibrinous rhinitis.

The following clinical histories were obtained in some of the cases where diphtheria bacilli were present:

John McM., age 16, occupation store boy, consulted me in November, 1896, complaining of nasal obstruction and of muco-purulent catarrh with post-nasal dropping. He stated that the duration of the catarrhal symptoms had been about six months, but although his general health had been below his usual standard, still at no time had there been fever or symptoms of any acute disease. Upon examination of the nose it was seen that the cartilaginous septum was deflected to the right, producing stenosis with marked obstruction, while on the left side the lower turbinal was hypertrophied. Both nasal chambers contained considerable muco-purulent secretion. He also had a chronic granular pharyngitis and some slight enlargement of the tonsils. Cultures were made from the nasal secretion and the bacteriologic report was that it was almost a pure culture of diphtheria bacilli. Upon investigation it was found that a younger sister of the patient had had diphtheria four months previously, and furthermore that different members of the family (which comprised ten children whose ages ranged from a few months to 19 years) had all suffered more or less from nasal catarrh and sore throat during the summer and autumn. This led me to decide to make further examinations. Six members of the family were examined and cultures taken from their nasal chambers, with the following results: One, a school girl of 8, was found to have chronic purulent rhinitis with muco-purulent secretion. Bacteriologic examination showed "a few diphtheria bacilli in involution forms." Another, a girl aged 9, was found to have chronic purulent rhinitis with muco purulent nasal secretion. Bacteriologic examination showed "staphylococci, numerous leptothrix and numerous small bacilli." Another, age 11, also a school girl, was found to have chronic purulent rhinitis with beginning atrophy and muco-purulent nasal secretions. The bacteriologic report was "staphylococci and long slender bacilli." A fourth member of this family, age 6, a school boy, had purulent rhinitis with beginning atrophy and muco purulent nasal secretion, also subacute follicular tonsillitis. Bacteriologic report, "large, heavily stained bacilli, resembling diphtheria in form." The mother, age 40, showed fibrinous rhinitis with a thick white membrane clinging to both sides of the septum, with muco-purulent nasal secretion; the mucus membrane of the pharynx reddened and congested (no pseudo-membrane on pharynx). Bacteriologic report, "staphylococci and small, irregularly stained bacilli." The mother stated that all the children had been in good health previous to last July, but since then had been continually suffering from a catarrhal condition of the nose and throat. All of the children examined were weakly, listless and anemic, but at no time during the past six months had any of them suffered from an acute illness.

Lizzie C., age 38, mill-worker, sought relief for chronic nasal catarrh, complaining of formation of crusts with thick muco-

purulent nasal secretion, the duration of the symptoms extending back many years. Examination showed an advanced atrophic rhinitis, the lower turbinals had completely disappeared. The middle turbinals were enlarged, congested and polypoid. The pharynx was dry and glazed; mucous membrane atrophied; no membranous deposit seen anywhere. Bacteriologic report, "typical culture of diphtheria bacilli." Questioning and investigation revealed no souce of the infection. The patient had no symptoms of any acute condition, and all the members of the family were well. This patient was kept under treatment for some months. Cultures were taken from the nasal mucus at different intervals and with the exception of a time when certain local treatments were being applied the diphtheria bacilli persisted. Each bacteriologic examination gave the same positive results.

Mr. P., age 35, occupation grocer, consulted me six years ago, suffering from constitutional and nasal syphilis. The lower and middle right turbinal bones had been exfoliated. The left nostril was normal. The patient's health at that time was very poor, having lost forty pounds in weight. Appropriate treatment, however, soon restored him to his normal weight; his general health improved and he discontinued his visits, except at long intervals. Last September he returned, complaining of poor health with pain in the region of the frontal and ethmoidal sinuses and reported a loss of fifteen pounds in weight. Examination showed the right nasal chamber filled with crusts and muco-purulent secretion. The lower and middle turbinal bones, as before stated, had been exfoliated. The chamber was very large and some uncovered bone could be detected in the region of ethmoidal cells. Cultures were taken from the nasal chambers, and the bacteriologic report was "a typical culture of diphtheria bacilli." Inquiry revealed no source of the diphtheritic infection. The patient was placed on active syphilitic treatment and again rapidly regained health. Cultures were made from time to time from the nasal mucus and diphtheria bacilli repeatedly found.

Many of the other patients with diphtheria bacilli in their nasal secretions, gave somewhat similar histories to those just cited.

REMARKS.

It is not the intention of the author to discuss in this paper the specific virulency or non-virulency of the diphtheria bacilli found in such a large number of these cases. Some experiments with cultures from several of the patients are about to be made upon animals and may throw some light upon this point. Many interesting points, however, occur to one's mind upon contemplating the results already obtained by this investigation, and some of these may be said to be positively demonstrated. Thus, it would seem proven that in a large percentage of chronic nasal catarrh the secretions are infected with diphtheria bacilli, staphylococci and other bacteria.

The importance of this fact in surgical procedures upon the nose, throat and adjacent parts, particularly the eye, is evident. Certainly the surgeon should precede such operations by a clinical and bacteriologic examination of the nasal chambers, and when necessary institute treatment to remove the nasal infection. Such treatment should include very strict disinfection of the nasal chambers, and the author would state that in most cases he had no difficulty in quickly effecting this purpose, although for a permanent removal of the germs, treatment must be continued for some time, for in a number of cases after stopping the local treatment, the diphtheria bacilli were found to return and were recognized in the cultures.

Again, the diphtheria bacilli were chiefly found in cases of atrophic rhinitis, chronic purulent rhinitis and nasal syphilis. In other words, where a pathologic condition of the nasal chambers with altered and morbid mucous secretions continues for a considerable length of time, thus offering a suitable soil for infection, not only by the diphtheria bacilli but by many other germs, as was ascertained by the bacteriologic investigation. Now, it is well known to us that in such cases we frequently find several members of the same family afflicted with the same disease, and although certain inherited and acquired constitutional dyscrasiæ frequently underly such conditions, yet we are impressed with the great importance not only of disinfection but also of avoidance of infection to others.

From this point of view, the common use of a handkerchief among the children of a family, such infected children sleeping with healthy ones, or the indiscriminate kissing of children, may be mentioned only to be unreservedly condemned. Again, in all the cases where the diphtheria bacilli were present, the patients were observed to be in ill health, being listless, pale and anemic, It was also observed, that after treatment was instituted, not only the local condition but also the general health greatly improved. It may therefore be possible that in such cases there is a slight chronic toxemia caused by the nasal condition.

Again, it is quite probable that in such diphtheria, infected nasal secretions may account for the present wide spread of diphtheria, indeed, several instructive instances have come under my notice; it is to be hoped, therefore, that the proposed investigation upon animals to determine the virulence of the bacilli will aid us in forming some positive decision.

In conclusion, it gives me great pleasure to acknowledge my indebtedness to Dr. W. J. Gillespie, whose careful and painstaking laboratory work alone enabled me to collect the material for this report.

1929 Chestnut Street.

ACUTE OTITIS MEDIA.

BY B. MERRILL HOPKINSON, M.D.
Member of the Medical and Chirurgical Faculty of Maryland and the American Medical Association.
BALTIMORE, MD.

After a very careful and interested study of the paper upon the above affection by Dr. Norval H. Pierce, and the discussion by some of his colleagues, members of the Chicago Academy of Medicine in the JOURNAL of Dec. 19, 1896, I have felt impelled to report a case, in which the treatment followed was very dissimilar to that advocated by the essayist and his confrères.

The case I shall herein report occurred in my own person, and is but a description of many others occurring in the practice of my very able and accomplished medical attendant, as well as in that of his students, and I am proud to number myself among the latter.

I fully endorse what was said by Dr. Wm. L. Ballinger in the discussion of the paper, viz.: "Dr. Pierce is to be congratulated upon the pathologic and bacteriologic portions of his thesis;" and I take pleasure in adding, that his clear exposition of the etiology of this most distressing affection, also calls for hearty praise and commendation.

It is only along the lines of treatment that I must and do take issue; and in order that my position may be made plain, and as well for the sake of brevity, I will detail as concisely as possible the history of my case, calling attention in passing to certain modifications in treatment, as compared with that advocated by Dr. Pierce.

On Wednesday, Feb. 5, 1896, I used in a Bermingham douche, a 50 per cent. solution of glyco-thymolin

for the relief of a mild attack of post nasal catarrh, and upon subsequently blowing my nose rather too vigorously, became conscious of having forced some fluid into the Eustachian tube, thereby infecting the tube and middle ear and enabling me to clearly demonstrate the etiology of the following inflammation.

On Thursday night after a day of some uneasiness I attended a performance of an oratorio, noticed a beginning of confusion of sounds, and commencement of pain and upon reaching home instilled into the external ear a warm solution of cocain and atropin, hoping for a subsidence of symptoms, or, perhaps I ought to say, hoping that I was not to be afflicted by otitis media.

I did not succeed in wooing the goddess of sleep, save for brief intervals, and early Friday morning I called upon my friend and teacher, Dr. Julian J. Chisolm, who made a diagnosis of acute otitis media, and prescribed as follows: Frequent applications, ten or twelve times daily of an antiseptic solution by means of an ordinary ear syringe, the injections to be made as hot as could be borne with comfort, and an abundant quantity of the solution to be used at each application. The solution used by me was mercuric chlorid, 1 to 1000.

The relief derived from following this advice, must be felt in order to be realized, and just here let me say from experience, not alone upon others, but from the best of all, upon myself, that I should never advise cold applications, until I have fully demonstrated that heat was of no avail.

The inflammation increased in violence during the day and night, and the frightful pain I experienced for the following five days, paroxysmal in character, has, I am sure, increased the volume as well as the quality of my compassion for other sufferers for all time. In addition to the hot antiseptic injections, Dr. Chisolm ordered me to keep the drum membrane well inflated by using a modified Politzeration, viz., by grasping the nose and blowing steadily many times daily. This afforded me some little relief from pain each time it was performed, and I had recourse to the action times without number. I was advised to use morphin in suitable doses to procure sleep, if I so desired, but I had sufficient courage, thanks to my athletic training, to refrain.

I desire now to call attention to the use of a drug ordered by Dr. Chisolm and not mentioned by Dr. Pierce or his colleagues; and I regard its use as beneficial in the highest degree in the treatment of the affection under consideration. I refer to pilocarpin muriate and I am sure that in my case, and in many others, middle ear inflammations have been terminated without suppuration by the combined use of this drug and the treatment outlined above.

He orderded one $\frac{1}{4}$ gr. dose upon retiring and also another during the day, if I remained at home, but as I did not abandon my work at any time, I only took the dose at night. The effect of the pilocarpin about thirty minutes after its exhibition was simply delightful. There was complete muscular relaxation and capillary dilatation, and I was simply dripping with perspiration from every pore in my skin. The sialagogue effect was also well marked in my case, but this is not constant.

After the excessive effects of the drug somewhat subsided, I was enabled to secure a few hours' quiet sleep, and I am sure if I had remained at home and used the second daily dose, my troubles would have ended much sooner than they did.

I reported daily to Dr. Chisolm or his son, Dr. Frank M. Chisolm, and they were daily surprised upon examination to find an intact drum head, a history of continued violent pain, and no discharge. Just at this point I think there should be a distinct emphasis laid upon the injunction to all physicians, never to perform paracentesis unless there be distinct bulging outward of the membrana tympana, demonstrating the presence of fluid in the cavity of the middle ear. Upon the eighth day the inflammation subsided rapidly, and while musical sounds produced a most distressing jargon for some days longer, daily improvement was observed, and by the 16th I was able to attend to my duties with some degree of comfort to myself.

During the height of the inflammation the watch could not be heard upon close contact; afterward it could be heard at a rather abnormal distance, farther by several inches than the unaffected ear, giving a most happy result to a most unhappy affliction.

I will not speak upon the subject of paracentesis, for the necessary removal of pus, and the subsequent treatment in such cases, as my object is simply to report my own case, and the treatment followed, in order to demonstrate that resolution may follow even so violent a case under the treatment as related.

In conclusion, allow me to say that I do not charge the Bermingham douche or the solution used as being the causative factors of my trouble in any way.

I should have known better, as a physician, than to have blown my nose after the use of spray or douche, save in the gentlest manner possible, and here let me sound a note of warning to physicians, even to specialists, who prescribe douche or spray, that they warn their patients of the danger of using violence in blowing the nose immediately after the use of such means to relieve catarrhal troubles, for by so doing many cases of middle ear disease will be avoided.

THE DYING FADS OF PROSTATIC THERAPY.

Read before the St. Louis Medical Society, Jan. 15, 1897.

BY G. WILEY BROOME, M.D.

ST. LOUIS, MO.

In order that I may be clearly understood I will here state: That unless we attribute to the words of a speaker or writer the same ideas which he intends to convey by them, we can never arrive at his conclusion. It will therefore be necessary that the ideas which I intend to convey by the title or heading of this paper should be explicitly understood, so as to prevent the misunderstanding or misconstruction of the remarks which are to follow: The words fad and faddist as used here are intended to convey the ideas expressed in the following sentences, viz.: A fancy adopted and pursued for a time with irrational zeal. An important matter imperfectly understood, taken up and urged with more zeal than judgment or discrimination. In connection with this explanation I wish to emphasize a statement to the effect, that no reflection whatever is intended upon those who originated and developed by painstaking and conscientious research new methods of prostatic therapy, which may be, and are, contemplated in the light of fads at the present time. I would not for a moment allow the impression that it was anything but the most commendable spirit that moved the deservedly celebrated medical gentlemen who first introduced and advocated prostatectomy

by various methods, castration, tying the vas deferens or the massage of the prostate through the rectum for the relief of chronic prostatic obstruction. And yet I wish at this time to emphasize just as strongly my condemnation of the practice with many physicians of alluring these unfortunates on to an untimely death with the enticing promises held out by the manufacturers of many proprietary medicines advertised and certified to as possessing great curative powers, when in reality the only benefit derived from their use is to increase cash in the pockets of the manufacturers themselves, and who in most cases never examined the prostate gland when diseased, or are capable of comprehending it in a physiologic or pathologic light.

It would seem both fair and proper for me at this stage of the consideration of the subject and before the various methods of treatment which are to be condemned and relegated to the domain of faddery, that I consider briefly and in plain language the following questions relating to the prostate gland.

1. How does it differ when hypertrophied and in this condition?

2. What complications are entailed? Lastly

3. What would appear to prove the most rational thing to do to relieve the patient without incurring any mutilation, increasing the suffering or adding to the dangers of a fatal termination.

1. Then how does the prostate differ when hypertrophied? I have two specimens for exhibition to show the macroscopic difference between a normal prostate and anabolic prostate; I might talk for a week and not make the difference so clear as it will appear by the objective instruction, and as to the macroscopic difference in the structures of the two prostates. Dr. Fisch will make the demonstration with the microscope and from the explanation you will see that the structure formed in any of these chronic enlargements consists of a multiplication of almost all of the normal tissue elements and an augmentation of the entire gland. The histologic structures are not necessarily however in the same relative proportions, nor arranged in the manner of the normal prostate; for in the majority of cases the connective tissue of the gland is the part most concerned in the hypertrophy, the glandular and muscular elements taking little or no share. In a few instances there is a general hypertrophy of all the tissues of the organ: Glandular, muscular and stromal, and very rarely the glandular element is in excess. The gland attains the greatest size when the enlargement is chiefly due to connective tissue hypertrophy.

Now as to the 2d question: What complications are entailed? I have a specimen here showing the early stage of infective inflammation of the inner wall of the bladder, which of course is a complication resulting from the enlarged prostate, the earlier complications come on rather insidiously, micturition becomes more and more frequent especially at night and is not followed by a sense of relief but of unrest and uneasiness in the bladder, eventually expulsive efforts are futile and retention becomes complete. Decomposition in the urine soon takes place and besides an offensive odor it becomes turbid, the reaction changes to neutral, then alkalin and ammoniacal and acute cystitis is set up, and the patient's distress is at its height, added to this condition vesical calculi may form and complicate and aggravate the prostatic symptoms, later the ureters and renal pelves become dilated and secondary changes occur in them due to infection from the inflamed bladder, *pari passu*, with the renal changes, the general health suffers, rigors and attacks of fever occur, and uremic poisoning or septic infection and coma bring about a fatal termination.

And now as the last question: What would appear to prove the most rational thing to do, to relieve the patient without incurring any mutilation, increasing the suffering or adding to the dangers of a fatal termination? If I were asked to answer this question in one word I should say without any hesitation whatever, and in the most earnest and emphatic manner possible—*rest*. I have never forgotten for a moment the impressive teaching of Professor Gross, when upon the subject of the surgical treatment of inflamed parts. He himself was clearly cognizant of the great importance and value of rest in the alleviation of pain and in the restoration of an inflamed part long before Hilton wrote his small but valuable book on Rest and Pain. I recollect so well when Professor Gross lecturing on this subject, he would suddenly stop when he came to the latter end of his lecture to begin the treatment after deliberating for a minute and casting his eyes from one student to another, apparently to satisfy himself that he had the absolute attention of every listener, he would say: "The first requisite, gentlemen, in the treatment of an inflamed part is rest." Then after a pause, during which he would again sweep the amphitheater with his eyes, *rest*. Then rising to his full magnificent height and folding his arms he would bend majestically forward and in the most earnest and forceful manner possible repeat, "In the name of God, *rest*."

To give the inflamed bladders of these poor unfortunate old men rest, appears to me to be the most rational thing to do to relieve the patients. Simple rest, nothing else! For it is the want of rest that kills them. They die because they can get no rest from the distress of the bladder, and no rest for the mind or the body, and thus their agonies increase until death mercifully closes the scene. How may rest be secured to patients in this condition, may be asked, without incurring any mutilation, increasing the suffering or adding to the dangers of a fatal termination? I answer that in my judgment, based upon extensive practical experience and clinical observations, there is but one plan of treatment yet devised that will afford the patient anything like prompt relief and the hope of a restoration to health or the rest that he is praying for without entailing any mutilation whatever; and that is by easy, complete and permanent suprapubic drainage together with occasional disinfecting irrigation. No other method of treatment in my opinion possesses rationality or is free from effects essentially calculated to intensify the patient's present suffering and unrest. The specimens I exhibit here, ought to satisfy any one that at least in some cases a prostatectomy attempted for the purpose of establishing a low level channel in order to enable the bladder to void its contents and for other reasons of great importance is beyond the limits of honest legitimate surgical procedures, whether the enlarged prostate is attacked through either of the three routes, viz.: Perineal, urethral or suprapubic or the operations attempted by means of the finger-nail, knife snare, gouge, scissors, chainsaw, or thermo, galvanic, or actual cautery. These operation in these cases must be relegated to the domains of antiquity and faddery.

It is not within the scope or intention of the writer of this paper to even introduce a discussion relative to certain tumor formations in the prostate, in which sur-

gical interference may be clearly indicated and warranted, notwithstanding obstructive and other symptoms are marked in the case. For here, as is present everywhere, the benign tumors are encapsulated and all encapsulated growths are amenable to successful surgical enucleation, when the tumor mass is situated so as to be at all accessible. I furthermore wish to say as was intimated at the outset of this hurriedly written paper, that I have nothing but words intending to convey the most profound respect and veneration for the names of Mercier who first practiced urethral prostatectomy, and Bottini who first advocated galvanocaustic prostatectomy, and Harrison who was first to carry out the operation of perineal prostatectomy, and also for Mr. McGill who first devised and practised suprapubic prostatectomy. These methods of treatment were results of calm conscientious and honest deliberation, but should be no longer cultivated, and when we come to contemplate the Raumm-White operation of bilateral castration for the cure of chronic enlargement of the prostate a feeling of the greatest misgiving and doubt comes upon us at once. It is difficult to understand how any one can conscientiously believe when he undertakes the operation how the distress and the diminution of the cystitis and cystopyelitis is to be alleviated and the patient, already in the greatest agony, be relieved by this mutilating operation. A similar onslaught was inaugurated a few years ago on the normal ovaries, and women were spayed for a cause and sometimes for no cause at all, only a consideration, and the male is being emasculated to cure his enlarged prostate, but as has turned out in some instances where the operator exercised more zeal than judgment, instead of an enlarged prostate a stone was found, er a simple specific cystitis existed. But the fad will go on to reap its harvest for the pocket of the operator and for the grave its victims for a while; just as the fad of castrating women flourished for a time, men will be castrated for stone in the bladder, chronic cystitis, malignant and tubercular diseases. For it is not always easy or possible to make a positive differential diagnosis between hypertrophy of the prostate and some of the conditions which similate it closely. Castration is such an easy operation that every tyro in surgery has attempted to perform it upon willing subjects, suffering from obscure affections of the bladder complicating hypertrophy of the prostate gland. But I trust that the day is very near at hand when the removal of any normal organ for any purpose will not be countenanced for a single moment.

THE TREATMENT OF ALCOHOLISM BY SUGGESTION.

BY F. A. BURRALL, M.D.
NEW YORK.

In the *Tribune Médicale* of Jan. 13, 1897, is a notice of an article by M. Tokarsky (*Wratch*, 1896, No. 31), on the "Treatment of Alcoholism by Suggestion," and which seems to me as likely to interest both the general practitioner and the specialist in nervous diseases.

The profession and the public have come to regard the victim of chronic alcoholism as a neurotic, under the influence of a nerve degeneracy, which implicates most readily that condition of nerve tissue of which instability is the prominent feature. These terms are perhaps somewhat vague, yet they are sufficiently definite to convey the idea. It is not the self-contained, vigorous constitution with strong power of resistance and obstinate vitality, which yields readily to the baleful influence of alcoholic excess, but the sensitive and the neurasthenic; such material as goes to the formation of the "nervous" part of society. Since this view has become more generally adopted and alcoholism has been treated as a disease, my experience has been that more cures have been effected. It is not strange that this should be the case, and the result also indicates how much the continuance or cure of alcoholism depends on the improvement of the mental or "nervous" condition. A man who is regarded as a brute by his neighbors, and who is scoffed at for not using his "will power" and throwing off a disgusting habit, is in a deplorable and crushing condition. He is often refined and cultivated when not under the influence of alcohol, yet soon transformed into an impersonation of all the lower traits of humanity by the taking of a few glasses of an alcoholic stimulant.

The habit may have been formed by the protracted use of alcohol which has been prescribed by a physician; he may have inherited a predisposition to its use; at all events the will power has been overcome, and he feels that society does him a great injustice by treating him as a criminal when he knows that he would give anything to rid himself of the bands which seem stronger than adamant.

Now, for such an one to feel that he is not a criminal any more than the patient who when under ether, before the operation, fights in delirium, is a great aid in the restoration of self-respect and hope. If he is a sick man he can look for sympathy and medical treatment. In fact, society has often dealt with the inebriate most unjustly. It has placed all kinds of temptation in his weak path, and then punished and degraded him for having walked into them.

Since the view that alcoholism is a neurosis has been adopted, various plans of treatment have been brought forward and used in many cases with complete success. In estimating the value of these different methods, we come in contact with the same difficulty which encounters us in the study of most nervines, in fact of most medicines which are given in neurasthenia. Where does the medicine *per se* show its effects, and where does what is popularly called "mind cure," exert its action? Often, discrimination is impossible. I have known the use of strychnin, atropin and chlorid of gold and sodium in very minute doses, repeated at short intervals, to be followed by cessation of the liquor habit in several cases of alcoholic habitués. We may regard, as combining to produce this effect, the "suggestion" accompanying each dose, the substitution of one habit for another, the cumulative effect of long continued dosage and the *personal* influence of the physician. We see how difficult it is to say surely where the curative influence exists. To turn from a digression which was naturally suggested by the subject, the following extract is subjoined.

"The treatment is as follows: The patient is hypnotized (*endormi*), preferably when he has drank nothing during the day. For chronic alcoholics the treatment is begun during a period of abstinence. From the first *séance* the "suggestion" is made to the patient that he should drink no more. Two days afterward the same experience is repeated. Usually after two sessions there is an improvement, and the third treatment can be deferred two or three days

[1] The patients were not restricted in their drinking, but soon lost their taste for it.

later. Gradually, the intervals between the visits are lengthened, until they are made every two, three or four months. The treatment can not be considered as complete under a year, since this length of time is considered necessary to observe all the variations to which the nervous system is subject. In favorable cases, patients stop drinking from the commencement of treatment. If they continue after the third *séance* or commence during treatment, it is regarded as a proof that good results are not to be expected and that 'suggestion' is unavailable as a remedy."

With suggestion M. Tokarsky employs strychnin in combination with opium. The strychnin is given in doses of 3 milligrams, gradually reduced to 1 milligram, which is continued for six months. After strychnin arsenic is used, or iron, etc. While the strychnin is used the watery extract of opium is advised in one dose of 15 milligrams.

In some cases of what he terms alcoholic neurasthenia, good results may be obtained by hydrotherapy. Still, all these therapeutic agents do not exert a satisfactory effect if unaccompanied by suggestion.

We believe, however, that there is an influence akin to suggestion, which is often exerted by the physician upon his unhypnotized patient, and which is very useful in the treatment of inebriety.

It is a question whether the use of opium in cases like those referred to in the above article is not attended with the danger of forming a new habit. It should certainly be used with care.

The subject of inebriety is one of such deep interest that it is at present engaging an unusual amount of study. It is of universal importance and intimately connected with human happiness and misery.

A COUNTRY DOCTOR.

BY THOMAS H. SHASTID, A.B., M.D.
GALESBURG, ILL.

For more than thirty years it has been my good fortune to possess the acquaintance of a certain country doctor—a man unknown to the world at large, but yet, like many another of his class, a man that the world would honor itself in honoring.

Even in my youngest days I knew him. His tall form, his lean but kindly countenance, his thin hair and tuft of chin beard, were among the earliest images of my childhood. Often I played in his yard. Often he would call me into his office where he sat at study, there to read to me from his books, or to demonstrate to me the bones of a skeleton, or, if the day were clear, to show me in his microscope the structure of the kidney or lung. Often, too, I went with him on his rounds; many a long summer day we rode, from farmhouse to farmhouse, uphill and downhill and along prairie, until at last, as the darkness settled about us, I clung close to his side and fell asleep beneath his arm. I naturally did not much understand in those days the various excellences of the doctor's character; but I recall how kind and gentle he always seemed to me, and I remember especially the keen sense of childish pity with which, when I happened to awake one stormy night, I heard him drive from the stable and down street in the cold wind and rain.

In my youth and early manhood it was my pleasant lot to pursue the study of medicine under this doctor, and then I ever found him both a skillful physician and a man of most interesting and amiable personality. His dominant passion, I think, was his love of children. I have never seen another man in whose affections children held so large a place. He used to shout at the children as we passed along the road, and if sickness were not urgent he would stop his horse, call them to the side of his buggy, and teach them to count in Latin and Greek. How many a bright toy did he not take to sick children of the poor! How many a word of endearment did he not speak to them! And how many a night, when only he was up, did he not study, hour by hour, to relieve the sufferings of children the more especially!

A hundred instances occur to me of the doctor's intense devotion to children. What a night was that when Joe Shepard, worthless fellow, came in at 10 o'clock, dripping from top to toe with rain! The lightning flashed incessantly and roar after roar of thunder burst about our very ears. Joe took up his position next the stove; the night was chill. The doctor was abed, where indeed he had been for three days, sick of a fever. Would the doctor come to see his folks? No; it was out of the question, he was sick himself. "It's mainly the little feller, Doc." "What! Not the one I gave the jumping-jack to?" "Yes, him," said Joe. "All right," said the doctor, "I'll go." And go he did, though I had to help him dress.

The doctor had once in his care a child to whom he had taken a great fancy—a child of poor and shiftless parents who lived far out in country, "on the back of another man's farm." There was not the slightest prospect of pay in the case, and the house was so situated as to require much time and trouble to reach it. Yet the doctor visited the child regularly and gave it his most earnest thought and devoted attention. Day after day we went to the cottage and day after day the doctor's face grew more clouded and anxious. At last there came a change. Yes; the child was certainly better, though the disease was treacherous. Then, one day, the doctor took with him a toy book—a brilliantly colored affair—and he showed it to me on the way, and said how cheap and poor a thing it takes to make a child happy, and how much more intense, besides, the happiness of childhood is than the happiness of older life. I stayed in the buggy that day and waited for the doctor. As he entered the doorway I saw the toy book sticking from his pocket. He was not long gone, and when he came out his head was bowed and he had his handkerchief to his nose, blowing vigorously, and from his pocket still projected the toy book.

And the children appreciated the kind doctor. They used always to answer his shout as we passed along the road; and now and then some urchin more enthusiastic than the rest would come tearing down to the gate, mount it, and shout after us his "*Unus*, one; *duo*, two," until we were out of sight. Many of them used to call him "*My* doctor." And I have seldom seen anything more touching than once when a sick, indeed almost a dying, child spread its thin, blue lips into a smile and murmured "*My* doctor," as the doctor approached its bed.

Next to the doctor's love of children came his love of nature. When, on our rounds we left a farmhouse the first thing was, as a matter of course, to discuss the case. That over, he invariably talked of the pleasant sights and sounds around us. It mattered not what the day was—sunny day or cloudy, colored day of autumn, white day of winter, budding green

day of spring—all days alike were to him beautiful and pleasant. Even days of storm he found not wholly unacceptable. He used to say that a man listening to the rain on his buggy-top and his horse's hoofs in the pools would, if normal, possess a sense of shelter and snugness never felt elsewhere.

But his favorite days were those of early summer. Then it was that he fairly grew ecstatic. Then it was that he talked by the hour of a meadow lark that sang from a rail-tip; of a field of wheat where a red and yellow reaper clicked and clacked round a square of standing grain; of the blue-vaulted sky and its infinite distances and its massive piled-up clouds that sailed along like chains of floating mountains. The clouds, indeed, which were the doctor's greatest delight of all, sometimes inspired him so much that he broke into verse. His lines were always somewhat stilted and bombastic, but no one could have known it better than he did himself, for he always overcharged them purposely as he neared their end, and then laughed at them heartily. Then, too, the clouds always suggested Italy. Italy—that was his theme. Italy—the land of Cæsar and Cicero, of Virgil and Horace—for the doctor was a classical scholar—but, better still, the land where cloud and sky are more than elsewhere on earth of divine and inexpressible beauty. "I shall certainly go to Italy some day," he would always say, "when I get money enough ahead."

There was one side of the doctor's character which, upon first acquaintance, you might not have suspected—his humor. Shy and even timid among strangers, he became, at times, among his older families and when we two were alone together in the buggy, the most jovial and jocular of men. Many a moment in the sickroom he rendered lighter with his merriment, and many a convalescent, leaning on elbow and listening to his happy talk and clear ringing laugh, must have thought that even sunshine could have been no better. In the buggy he sometimes stooped to nonsense. I can hear him now singing:

> "Oh, a green peach pudding and a blackberry pie,
> A black cat kicked out a yellow cat's eye."

But his funny moods never lasted long. He was essentially a grave and serious man, full of cares and full of tenderness and pity for the sick.

Indeed these qualities of tenderness and pity serve to explain, I think, in some measure, his intense devotion to his studies. Medical works were to him not mere dry treatises on science. They were storehouses of facts that were to be of service to suffering humanity. Whenever he read of a disease he seemed to see some person that had it. Whenever he read of a remedy, he seemed to see some pallid countenance looking up imploringly for relief. Every new book, every new number of a journal, he read with the utmost avidity, as one whose brother was condemned to die might read some legal document in which he expected to find a word of reprieve or pardon.

Even in his experiments, to which, for some years at least, he was greatly given, you could trace the influence of his kindliness and sympathy. In his little one-room office—an apartment of his house—he would not infrequently sit up half the night pouring this thing into that and triturating something else with the other; and the commonest object of his search was—to find some way of rendering nauseous medicines pleasant and palatable. Agreeable pharmacy, you see, we did not have in those days. None of his experiments, I believe, ever came to anything. He lacked the necessary apparatus, and more than that he lacked the necessary leisure. But some of the ideas he worked on in those days have since been taken up by large manufacturing houses and have made them rich and famous.

As might be supposed from his great sympathy, the doctor almost never refused a call. Whether he was summoned in the daytime or in the early evening, or in the later evening when only he was up sitting at his books, or in the far dead of night, he was always ready for duty. Suns were never glaring enough, nights were never dark enough, roads rough enough or muddy enough, rains pouring enough, frosts cold enough, snows deep enough, winds loud or chill enough to keep him from the sick. And "rich or poor" made no difference. The only question was, did some one need him?

I remember that one morning after the doctor had been out all of a black and stormy night, we were very much startled by seeing his horse come tearing down street to the gate, without driver, without buggy, and with only a few pieces of harness clinging to his back. A messenger arrived shortly afterward to say that the doctor had been run away with, and had been thrown from his buggy, but that he had not been much hurt, and hence had got another horse and buggy, and would make another call or two before returning home. He was really in a sad and sorry plight, as we found when he got back. His clothing was torn and covered with mud, his face was scratched and bloody, and his arms and shoulders were so badly bruised that we wondered they had not been broken. He was sick, too, for several days. We scolded him not a little because he had not come back as soon as he was hurt. But what could he do, he said. There was a poor old sick woman a few miles further down the road, and a few miles further still a sick child, both of whom needed assistance badly; and as for himself, why *he* could wait.

I know of nothing more suggestive of the hardships of the doctor's life than a collection which he used to keep in a drawer of his office of the various buggy lanterns which at one time or another he had used in his practice. Why he kept them I never knew. All of them were useless. Most of them were eaten out by rust; some of them—curious, patented things—had never been of service; others were mashed and twisted from runaways and wrecks. But they told a story of many a bad night.

A man who once saw those lanterns said to me that at a time when he was sick for several weeks he used as he lay of a night to watch for the light of the doctor's lantern as it first appeared at the turn in the road. One night he became much worse. And, as he was a poor man and the night was so dark and stormy, he feared that the doctor would not come in time. And, lying there in agony, he took one of those strange fancies that sick men not infrequently take. He said to himself that if the doctor's light appeared by 1 o'clock, the usual time, he would live; if not, he would die. And he lay and waited. And a little before 1 the doctor's light appeared. It seemed to him, he said, the brightest star that ever dawned. I have often thought that in the many years of the doctor's practice ten thousand other eyes must have watched no less eagerly for the light of his lantern as it came shining down the country road, bearing its messages of life and health and happiness and joy.

Into the sickroom this doctor must have come like

hope. You could tell by the compression of his lips that he meant to save; and you could tell by the calm of his eye that his sympathy had not perverted his judgment. He had a way, when he began to examine a patient, of whistling softly to himself. Then he went slowly and cautiously from symptom to symptom. Nothing escaped him. There was no hurry. No matter how sickly the time or how sleepy and aching his head, everything must be gone over systematically, carefully, critically. Some one thing might make all the difference. I can see him now rubbing his spectacles to make sure he has read his thermometer with the utmost accuracy. Then, when he took up his "pill-bags" and placed them with the band across his knees and spread out the powder-papers on the band and took up the bottles and dosed the medicine on the papers, and then took up the papers one by one and folded them, you saw in every step the same great precision, the same thoughtful care. What a void he must have left in the sick-room when, at last, the round of instructions gone over for the second and even the third time, he shouldered his "pill-bags" and departed! Surely no money could ever pay such a doctor, and surely, had he not had a family of his own, scarcely a thought of money had ever entered his head.

I must relate an incident that illustrates the doctor's intense and bulldog-like pertinacity in a hand-to-hand encounter with death. A man who had taken an overdose of morphin was given up by his other physicians to die. Nothing, they said, could now be of any service to him. Anything further done to keep him awake would be mere unnecessary pain and torture to him. But *this* doctor did not give him up. He stayed with him day and night. When the lungs threatened to breathe no more he started them with electricity or with burning paper to the nape of the neck and the spine, or with artificial respiration. The neighbors came about, as neighbors sometimes will, and said it was a sin and a shame, that it ought to be stopped, that the misguided doctor was simply mutilating a corpse. But the doctor did not heed them. He turned his other cases to the other doctors and kept on. He tried everything of which he had read or heard or dreamed. The hours of the night wore slowly away. The hours of the next day wore slowly away. And then those of the next night. Finally, at sunrise on the second day, the last of the effects of the morphin had gone and the man stood up and looked upon the earth and lived. His neck and back were somewhat blistered and sore, but he lived. And he lives today.

Well—even in these later years my acquaintance with this country doctor does not cease. He is still in active practice, and on my visits to my native town I always meet him and always ride with him in the country. Our rides have not much changed. Again he discusses the cases, again he shouts at the children, again he talks of the beauty of field and sky, again he says he means to visit Italy some day when he gets money enough ahead.

I am inexpressibly pained, on some of these visits, to observe that the furrows in his face are growing deeper; that his form, once erect and elastic, is getting stiff and stooped, and that his clear, almost ringing, voice is beginning to show, though happily at long intervals, the tremors and quavers of age. Yet his kindly face and his old-time figure still make, I ween, no less pleasant a picture as they enter the sick man's doorway, and his cheery voice still makes to the sick man's ear no less pleasant and hope-inspiring music. Still he goes about his duties, still he goes on his mission of health-giving and hope-giving, still he responds to the calls of rich and poor alike, by night and by day, in sunshine and in storm. Sometimes I think that he has done enough, that forty and odd years of practice on those hills should constitute sufficient of duties performed for any one man. And yet I know that did he cease to practice he would be unhappy, and that many a sick child would miss "my doctor," and that many a sick man or woman, looking out at window, would long in vain to see the old white-headed physician come once more, "pill-bags" in hand, along the path.

Such, gentle reader, is my weak and inadequate description of the character of my father. Being my father, he naturally occupies in my estimation a higher place than could possibly there be given to any other man. And yet, if I err not, there are practicing in the length and breadth of this country many hundreds, nay, possibly even thousands, of country doctors who, in skill and in judgment, in geniality and kindliness, and tenderness and sympathy, and ready response to calls, and dogged and never-ending pertinacity in the fight with our old and common enemy—disease—are *almost* the equals of my father. What more could I say for them?

THE MENDACITY AND FILTH OF QUACK ADVERTISING.

BY JOHN MADDEN, M.D.
MILWAUKEE, WIS.

"O Lord! Lord! how this world is given to lying."

In a conversation, a short time ago, with a gentleman who is the business manager of a great and influential newspaper, the subject of what doctors could or should do in the way of making themselves known through the columns of the lay press, was discussed at some length.

The journal which this gentleman serves is unusually clean, and he assured me that in a single year he had rejected "medical" advertisements which would have brought his paper an income of fifteen thousand dollars at least. These rejections were made upon the grounds that the matter rejected had a direct tendency to corrupt public morals; that it was filthy, obscene, and often a direct invitation to the public to become accessory to the crime of manslaughter. He mentioned one instance, coming to his own observation, in which the innocent boys and girls of a morally clean neighborhood were defiled by the filthy literature sent out by a local quack in answer to a letter written by a bright young lad who wanted to find out what the advertisement meant. This paper however continues to publish the gray-headed frauds which have grown fat on printer's ink and divers new frauds improved by the terminology of modern medicine.

Now this gentleman is a good business man and he very naturally regards this matter from a business standpoint. He sees no reason why an honest physician or surgeon, or all honest practitioners of medicine, in fact, should not be willing to modestly announce their names and location in his journal. He thinks, and justly too, from his standpoint, that having purged his columns of everything objectionable in medical advertising excepting the ordinary mendacity which attaches to all kinds of advertising, honorable medical

men would not be in bad company and his paper would receive some merited compensation for that which he rejected.

In reply to this pleading and answering for myself alone, I wish to point out what seems to me to be the objections to medical advertising.

If a man is known by the company he keeps it would be well for the physician to examine the character of the medical advertisements which appear in the newspapers before he decides to be one of the advertisers. He may easily find them for they are everywhere in print, and their pretentions are great and numerous. For the purpose of determining their character, let us make an examination of those cut from one issue each of five newspapers, four of them published in Milwaukee and one in Chicago. These yield a total of 131 advertisements. Revising this count by cutting out all but one of the advertisements appearing in two or more of the papers, there are still more than one hundred; about one hundred and fifteen. Nothing is gained by separating them into advertising doctors and remedies advertised; so it appears better to examine them from the standpoint of public policy and its relation to moral ethics. Accordingly these advertisements fall naturally into three classes: Those that are false, those that are false and filthy, and those that are false and filthy, and criminal.

By far the greater number of "medical advertisements" (I wish here to apologize to the medical profession every time I use the word medical in this connection) belong to the first class. They represent to the public that they can cure certain diseases, that as a matter of fact they have cured thousands of such cases, "in their worst form," after they had been given "up by the doctors," and that no patient treated by them had ever died of the disease. You may say that nobody believes such lying as this; but it is a peculiar pyschologic fact that thousands do believe them.

If the patient be not seriously ill and would recover speedily had he taken no medicine at all, makes the diagnosis of Bright's disease of the kidney (Had he not read the symptoms in his almanac?) and forthwith takes Dr. Quack's medicine or consults Dr. Quack himself, is he not, after a speedy recovery, as ready to give Dr. Quack any number of testimonials as he was to fill Dr. Quack's pockets with money?

As to chronic cases, I wish here to raise the question as to whether patients ill with long continued diseases should not have guardians appointed to keep them out of the hands of this as well as every other kind of shark. Can one be of sound mind when his brain cells have been for months saturated with the ptomains of a disease like tuberculosis? That, however, is another story.

Here then are the objections to this class of medical advertisement. The patient makes his diagnosis while he is as ignorant of human anatomy and the symptoms of disease as he is of the duties of the Grand Llama. No matter how trifling his ailment he believes he is a "pretty sick man." If this quack doctor makes the diagnosis he is sure to be very sick. In either case he is imposed upon and in all cases, and he swallows stuff that he were better without and is always fleeced of his money. It may be objected that all advertisers set forth their claim upon public patronage with small regard for the truth.

It may be said with truth that the merchant who says he is selling his goods below what they cost him or that his goods are far superior to those of his neighbor yet he is selling them for less money, is saying what he knows is not true; but the public has its safeguard in the fact that only ordinary judgment is necessary to disprove the claims of this kind of advertiser, while years of study and investigation are necessary to deal properly with the falsehood of the medical advertiser. If the merchant sells a garment which he advertises to be "all wool," the purchaser has only to burn in a gas flame a few threads pulled from the material to prove or disprove the statement; but a careful chemic analysis is necessary to determine the charater of the advertised nostrums.

Thousands of cases come yearly to the notice of the medical profession in which some poor victim has been robbed of his money or his health or both by the representations of the advertising mountebank. Two prominent cases of this kind were brought to the notice of the writer. The first patient had contracted syphilis and immediately went to the "Hot Springs," the Mecca of syphilids and there he met one of the fraudulent "doctors" which curse the place, and from this man he bought twenty pills "warranted to contain no mercury and to cure the disease inside of two weeks!" For these pills the young man was to pay $160, $60 at the time the pills were purchased and the balance when a cure was effected. After paying the $60 he had just enough money left to bring him home, and immediately upon his return he presented himself at my office with a mercurial sore mouth. The most remarkable thing about his case was the pertinacity with which he believed the statement of the rascal who robbed him of this $60.

He was fully convinced, however, when a simple chemic process yielded a large globule of metallic mercury from three of the pills. He knew what metallic mercury looked like. Another case was a victim of too much "catarrh snuff." He was a catarrh snuff "inebriate," in fact. Physicians know what this means, but the laity must be told that the principal ingredient of this snuff is cocain, the most seductive and most ruinous of all stimulating narcotics. He became a "cocain fiend" and is today, if he is not dead, wrecked beyond hopes of recovery, and the amount of money he has paid for Dr. Fraud's "catarrh snuff" must have made that rascal considerably richer. How many more victims this deadly snuff can claim is unknown, but the number can not be inconsiderable. The writer has met this Dr. Fraud. He wears the garb of a gentleman, is suave in manner, and his shirt front is decorated with conspicuously large and brilliant diamonds. Last year his business brought him a profit of more than 50 per cent. on a "capital stock" of $100,000. The man who sells intoxicants over the bar calls things by their right names and pays the State and city a large license for the privilege. Let the temperance reformers not forget that there may be worse things than the liquor traffic.

It is not contended that all the nostrums advertised are harmful as those above. Many are only inert or unnecessary, and are purchased largely by poor people who can not spare the money thus spent, for the price of nostrums is high. Some are amazingly bombastic, some refreshingly foolish, some setting forth ideas so gray with age that their author might have been a medical student with Hippocrates, talking as

they do, of the humors and "what humor is the worst of all humors." Here is a fellow who wants to convince us that we are sick or well according to the condition of our "inside nerves," and that his "inside nerve tonic" is just the thing our inside nerves have long suffered for. Everything is fish that comes to their nets and they or their medicines are the "only divinely appointed" for the regeneration of humanity. There is, indeed, not a passion nor a prejudice which is not played upon by the gentlemen of the quack profession. Here is an amiable old divinity whose eccentric methods in Germany have been transplanted in America. He is not a doctor of medicine, but came of his ideas by some sort of ecclesiastical introspection. He is a fad, and milady loves a fad. She will rise early in the morning to trot around in the wet grass barefooted, give up corsets, eat plain food, and go to bed early, all because it is delightfully unconventional. Her family physician has a hundred times warned her against late hours, the eating of indigestible food and the taking of too little exercise; but the family physician, you know, is a dry old chap, given to considering medicine as an exact science, and the entire absence of frills about him makes him something of a stick. It is different with dear old divines who practice medicine; but, some day milady will adopt a new fad.

In the same paper from which the above advertisement was cut, a religious paper, by the way, are found others in clerical garb. Here is one with a nice little chapel in the foreground saying that Brother Jones' tea is good for the liver, kidneys, stomach and blood; for salt rheum, pimples, blotches, coughs and colds. Here is another reverend gentleman who has a medicine that cures about twenty-five serious diseases, beside "increasing the flow and power of nerve fluid." He owes an explanation to the medical profession. Here is another one for the cure "of dropsy" (is it possible that intelligent men still call dropsy a disease?) and here is another which says, "your doctor will tell you this is true." Now this is a rather large story for a religious paper to publish. There are others. One of them, a testimonial from a Methodist minister out in Iowa. It is perhaps a sign of the times when a Methodist minister's letter is published in a paper whose religion is not Methodist.

When I was a student in college I had a good but mischievous chum, who used to annoy me by reading quack medical advertisements to me. He is a lawyer now, and I trust he does not carry any of that kind of humor in the court room with him. If you gentlemen are tired of this, I beg your indulgence a few moments to a class of medical advertisements which are as mendacious as those just described, but filthy beside, and still another which are a stain upon our civilization.

The most prominent of the second class of advertisements mentioned above are those which call the attention of young men all over the country to a physiologic process that almost invariably comes with puberty, is as natural at that time as is breathing to the newborn infant, and is an evidence of health and not of disease. A new life is opened to the boy; he has different thoughts, different feelings, and his nervous system has grown wonderfully sensitive. All this is played upon by the rascally quack, and if the poor boy is unfortunate enough to get possession of one of this fiend's pamphlets he suffers untold misery and is often made at least temporarily insane. Speaking of cases of this kind, an eminent French writer in the *Journal de Médecine de Paris* says: "In the United States such cases are innumerable, and such hallucinations are fostered by the public press, that venal and unscrupulous in the extreme as to money-making by fradulent advertisements, prints horrible faces of men before and after treatment. The only wonder is that medical men of that country do not rise up and demand the suppression of such vile newspaper ads. Advertisements that send scores of American young men to the asylums and drive many more youths to suicide. No civilized nation in the world except America would tolerate such 'journalism.'" If this French doctor should come to America he would see how little our reputable medical men have to do, as yet, with shaping medical legislation. But that can not be dwelt upon here. It is another story. If this gentleman came to Milwaukee and picked up one of our afternoon papers he would find half a dozen or more of such advertisements which he so justly condemns. Should he cut all the quack advertisements out of this same paper, he would not have much of the paper left.

One shrinks from mentioning all the nastiness which meets his eye in the daily newspapers, in the shape of medical advertising. They are the luring traps set for the foolish boy or young man, to lure him into a den of thieves with promises it is impossible to fulfill, rob him of his money and kick him into the street worse than when he entered.

The last and greatest offense against public decency, the law and good morals, of which I wish to speak, is that class which advertises a willingness to commit a crime which our statutes have defined as manslaughter. It is astounding that these so thinly disguised advertisements are allowed in the public press. Here is one, verbatim, with the name left out. It appears daily in at least two of our city papers: "Ladies needing confidential treatment may consult ——, specialist in female complaints; cures all female irregularities, skillful and scientific." What does this mean? Ask any physician the cause of at least nine-tenths of all female irregularities, and how they are cured by such advertisers, and you will have a key to the situation. Positive proof as to what this class of treatment means is not lacking. About a year ago a woman bearing the same name as that signed to the above in the newspapers, and, undoubtedly the same person, was tried in a court in this State for the very crime which she now advertises to commit. A physician well known to the writer, gave testimony as to the possibility of committing the crime in the way described by the State's witnesses, which was at once affirmed. She was quickly found guilty by the jury, and the trial judge, with apparent reluctance, gave here the shortest possible sentence, namely, four years in the State prison at Waupun. After serving eighteen months, the trial judge signed her application for a pardon, and our late pardoning Governor set her free. She now announces that she is apparently ready to commit the same crime "skilful and scientific." But Milwaukee papers are not the greatest offenders. I hold in my hand nine advertisements of the same import, expressed in surprisingly plain language, taken from one column of a Sunday issue of a Chicago daily. Truly, good Sunday reading. Perhaps it will be argued that Chicago is not a moral city, that only in Constantinople is it so easy to get rid of undesirable citizens. There is this dif-

ference, however: Representatives of the great European powers are watching the wrongdoings of the Mussulman and the people of all civilization are looking toward the slaughter; but America heeds not nor cares not for the slaughter of thousands of citizens unborn and unprotected; and the murderers may safely advertise openly in the Sunday papers their disgusting criminal "business."

On January 29 last, speaking before the New York Academy of Medicine, President Cleveland said of this class of criminals: "Within the limits of your professional power and influence you seek to restrain any reproach to criminal malpractice, yet newspapers disgustingly, though covertly, advertise in the way of such crimes and startle their readers with sensational tales of death and misery to which they are directly accessory. I need not suggest such evils are allowed to exist by reason of the insufficiency of our laws or a laxity in their execution. I have intimated that for this condition you are not responsible in a professional sense, but are you sure you are doing all in your power as citizens to remedy the situation."

Today we find this shamelessly hypocritical statement in an editorial of a Chicago journal, which publishes on another page several of the very class of advertisments which Mr. Cleveland has characterized as "disgusting" and criminal: "The President urged upon his hearers the public duties that peculiarly devolved upon them as professional men and as citizens. The warfare against charlatanism, miraculous cures, all sorts of pretenders who prey upon the sick and the afflicted, not to speak of the ever-increasing cases of criminal malpractice, should not only be unceasing but it must largely be directed by the medical profession." "If," said the President, "enactments already in force are neglected or badly executed, you should not forget that it is your privilege and duty to insist upon their vigorous and honest enforcement. If members of your profession were oftener found in our National and State legislative assemblies, ready to advocate reformatory measures you have demonstrated to be necessary and to defend your brotherhood against flippant and sneering charges of impracticability, the prospect of your bestowal upon your fellow-men of the ripened results of your professional labor would be brighter and nearer."

This is undoubtedly truth, and yet it demands large exceptions. Medicine, no less than law, is a jealous mistress and exacts from those upon whom she would confer her highest favors the most undivided affection and submission. It is an arduous profession, but there should be a stage in the doctor's career where he could give up some of his private duties and devote more time to the demands of high citizenship. Congress and the State Legislatures would be greatly bettered by representatives from the medical profession. But whether in office or out he ought still to remember his ordinary obligations to the community in which he lives by attending primaries, conventions and elections and thus do all in his power to advance the cause of honest government.

The editorial closes with the Pecksniffian statement that, "this is what the President chiefly meant and his words may well be pondered by the profession everywhere." Do you see through the thin veil which is meant to hide this man's hypocrisy? Another "great" Chicago daily of the same date notices the President's speech in an editorial three-fourths of a column in length; but not a word does it say about that part of the speech which says, "Yet newspapers disgustingly, though covertly, advertise in the way of such crimes." This is too vigorous a criticism of an important and, no doubt, highly profitable department of this journal's advertising. Anyone who would take the trouble to examine its columns for a few days will find that it freely lends its aid to its dishonest brethren not only in the form of advertisement and news, but in its editorials also. No doubt it does this for money, but is the secular journal which does this a whit better than the blatant rascal and his remedies which it advertises and commends to its subscribers?

It is not possible to read without a thrill of joy the first recognition of this abominable crime by a layman of Mr. Cleveland's influence, but the heart shrinks from a task compared to which the cleansing of the Augean stables was a school boy's morning task. Is it possible that the medical profession can do nothing in this matter?

Then there are the infallible "pennyroyal" and "oil of tansy" medicine for the purpose of criminally interrupting the function of gestation. From taking the latter with unlawful intent the writer has seen one death and one case of violent poisoning in which the escape from death was very narrow.

In writing the above I am aware that I have only touched the border of the kingdom of quackery. There is the faith curist, the divine healer, the therapist and pathist of every kind and condition. There is the woman who will make you beautiful by plastering certain abominable mixtures upon your face, and the one who would make your bust at least six inches larger. This reminds us of the story of an advertising charlatan in London who declared to the public that he could make long men shorter and short men longer. It was surprising to see the number of long and short clients he accumulated in a short time. Soon, however, after gathering up a good many of Her Majesty's coin of the realm, he suddenly disappeared, leaving a large and sorrowing clientage. A wag hearing of the circumstances, remarked that the mountebank had fulfilled at least half of his contract, for were not the long shorter, a good deal shorter, while, of course the short were shorter than they were before? As to a woman making a bust larger there seem to the writer, for physiologic reasons, to be insurmountable obstacles.

Such, then, is the character of the company to which the honorable medical man is introduced, no matter how modest his announcement, if he allows his name to appear in a newspaper. Surely, it is a company from which he must shrink with loathing and disgust. Beside, what chance would the physician's modest card have to attract the attention of the public in the midst of all this florid mendacity, this filth and criminality, this portraiture, and all the other trappings which aid the professional fraud to catch the dollars of the trusting public?

There are still other reasons why the physician may not advertise as the term is understood by the laity. Suppose he should say to the public that he has spent so many years in a certain university, where he received the foundation for a medical education, that he afterward took his medical degree in its department of medicine and surgery, then, after practicing general medicine ten or twelve years, he went to some large city, where he was a student of Professor Jones,

the world's greatest specialist in a certain class of diseases, and that he was a resident here to practice Professor Jones' specialty? Now, all this would be unobjectionable if it did not appear as an advertisement in the foul company of the secular newspaper medical advertisers; but what good would it do the advertiser? The public never heard of Professor Jones, his name nor portrait never appeared in the papers, therefore his student must be a poor stick. Beside, have they not their own great specialists at their very doors, with a column of testimonials, headed by the rascal's portrait? The attitude of the public toward the medical profession and all things relating to cures is an anomaly.

They seem to have kept pace with all forms of learning except in medicine. Here the grotesque painted and befeathered medicine man is still with us. Here only are miracles worked, and the newspapers give us so many each week that the spirits of the patriarchs of old must blush with envy (if spirits ever blush). In all other departments of human activity the miracle is conspicuous by its absence. No thirsting Moses has in modern times struck the pinnacled rocks of the Bad Lands and caused a stream of pure water to flow therefrom, nor has any modern Jonah taken a summer vacation trip to Europe in the stomach of an accommodating whale, nor does anyone now turn water into wine, though the knight of the white apron has been suspected of turning wine into half water.

How long before the public will learn that the laws of health and disease are as inexorable as those which regulate the seasons and day and night. If your friend and brother, O public! is all but destroyed by the tubercle bacillus, and your family physician, who has been like a father to you, tells you that the grim reaper is near at hand, will you take him to the advertising miracle-working quack who has "never lost a case of consumption," and have his days made uncomfortable by the foolish bombastic rant of this fellow who wants only your money and then have him insult you by telling you that your friend and brother was "not brought to me soon enough."

Why does not the lawyer advertise? He might say, for instance, that he never lost a case in which he had defended a murderer, although he has had hundreds of such cases. How long would a judge permit such a lawyer to practice in his court? Would the public give heed to a lawyer of this kind, except to spit upon and spurn him? Yet the statement is not as absurd as that of the medical quack who advertises to the same purpose, and yet the learned judge is willing to give a signed testimonial, mayhap with his portrait, which Dr. Fraud proudly displays in his next advertisement.

What, O learned and incorruptible judge! has the noisy rascal whose nostrums you thus commend ever done for the cause of humanity? Do you know that he has invariably stolen a common instrument of the medical profession, dressed it in the garb of ancient mysticism, put the mask of miracle upon its face and sent it forth to rob under the pretense of doing good? Be lenient with the man who comes before you charged with getting money under false pretense, for you are accessory to the crime.

Why do not ministers of the gospel advertise? Using the language of the fraudulent medical advertiser they might tell of new and improved ways of saving the soul, discovered by some pious man in central Africa or the Fiji Islands. These reverend gentlemen might say that thousands and thousands of happy souls are in paradise today, which were all saved by their methods, and that they can give treatment by mail at $3 a week. I have before me an advertisement which contains the following, signed by a gentleman who writes "Reverend" as a part of his name. He declares that: "When I entered Dr. Fraud's Institute I had catarrh of the head, throat, stomach and bowels. Under Dr. Fraud's incomparable treatment I got entirely well. I was not only cured of my infirmities, including deafness, but completely reëstablished my health." Suppose now that the Rev. Jones used the same methods to get "trade" as Dr. Fraud uses and suppose (which requires some imagination) that the Rev. Jones had converted by a "new method" Dr. Fraud, and made him an honest Christian gentlemen. It would be only proper and reciprocal for Dr. Fraud to give the following testimonials: "When I met the Rev. Jones I was a very bad man, I suffered with dry rot of the soul, lack of conscience and the difference between truth and falsehood was not known to me. Indeed, so bad was my case that I had no remembrance of ever having known truth or honor. After remaining in the Rev. Jones' Hallelujah Institute and taking his salvation incantations and regenerating rubbings, I became again a good man and promise to give back as far as possible all that I have got by fraud. I shall advise all persons similarly afflicted to go to Rev. Jones' Institute." If the Rev. Jones is shocked because things sacred to him are thus treated flippantly, let him be told that there are no things in our lives more sacred than truth, honor and charity. How much of any of these virtues is possessed by the fraud whom he is helping to continue in this shameless imposition upon the people.

The above, then, are my reasons for not putting any kind of advertisements in the newspapers, and I think they are also the reasons of my professional associates. When will our lawmakers compel those debased men and women who so lightly trifle with valuable human lives, to give satisfactory proof of the truth of their claims or to be at once suppressed? Honorable members of the medical profession are every day doing deeds, which, when compared to the silly gabble of the blatant fraud, shine as the electric arc light to the penny rush. They are forming ties which bind them to beautiful, intelligent and loving households, who give to them the priceless honor of gratitude and confidence which no other man receives, and in no other professson or calling does a member receive the ungrudging honor of his fellows for meritorious deeds more than in the medical profession.

MISCARRIAGE PRODUCED BY GUNSHOT WOUND PENETRATING THE UTERUS.

BY J. A. BAUGHMAN, M.D.
NEOGA, ILL.

Mrs. J. M., living near this place, seven months advanced in pregnancy, while descending a flight of steps holding a child in one arm and a loaded rifle in the opposite hand, dropped the weapon in such a manner as to discharge it, the ball entering her right thigh back of and a little below the trochanter major. It ranged upward through the obturator foramen, through the broad ligament into the uterus and amniotic sac, liberating the fluid contents thereof

through the os uteri. I was hastily summoned, and went prepared to make an abdominal incision if necessary.

Although American born, she belonged to the race of the great unwashed, and my first act was to borrow from a kind neighbor some linen, of the sort akin to godliness, enough to dress the patient and her bed, after I had administered a prescription of *sapo domesticus* and *aqua communis* applied externally.

I examined the vagina and bladder carefully for injuries, but found none. I then delivered the dead fetus and the placenta in the course of an hour, and controlled a postpartum hemorrhage of considerable severity. With my hand in the uterus I could feel the point of entrance of the bullet, but could find no exit, in fact I do not know what became of the ball. I ordered a vaginal douche and kept myself in readiness to do a laparotomy should troublesome symptoms arise. Her recovery was very rapid and uneventful, for in fifteen days the patient was again delving in her household duties, renouncing the doctrine of immersion, happy in having forestalled Malthus' precept of not marrying without a fair prospect of supporting a family.

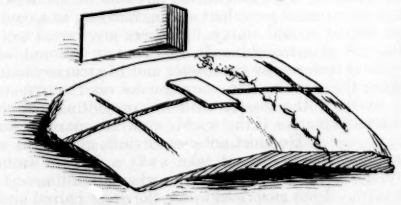
If some of our city gentry who are engaged in checking over-population are on the *qui vive* for something new I advise them to try a gun.

A SIMPLE METHOD OF ATTACHING THE CALVARIUM AFTER POSTMORTEM.

BY H. A. SIFTON, M.D.
MILWAUKEE, WIS.

Every one who has done any number of autopsies has been annoyed by the displacement of the skull cap after the work is finished. To remedy this a number of methods have been devised to retain it in place, such as cutting the bone at an angle, sewing the temporal fascia, but none, so far as I know, has proven satisfactory.

This led me to devise the following:



Just before ready to remove the calvarium, mark the skull with the saw on each side at right angles to the circular incision. When ready to replace the skull cap incise it to the depth of half an inch at the point marked, then incise the skull (on the proximal side) at the point marked to the same depth. When the calvarium is replaced this makes a slit the width of the saw half on each side of the circular incision. Now insert into this slit a small piece of sheet copper with one end turned over for a head. If the wedge of copper is thickened on the edges by a few strokes of the hammer, it will hold so much the better. The copper of the wedge should be about as thick as the saw plate, and can be cut with a scissors. It holds the skull cap in perfect position and can be applied in half a minute.

SURGERY ONE HUNDRED YEARS AGO.

AN HISTORICAL STUDY

BY DR. GEORGE FISCHER.

DEDICATED TO THE GERMAN SURGICAL ASSOCIATION.

TRANSLATED FOR THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION BY CARL H. VON KLEIN, A.M., M.D.

CHAPTER I.—DOCTOR AND BARBER.

(*Continued from page 362.*)

Barbers practiced side by side with physicians. A characteristic, in the broadest sense of the word, of the eighteenth century may be expressed: Medicine and surgery were sharply separated and German surgery lay almost entirely in the hands of the barbers. A cursory glance into the past of German surgery shows that in spite of the great fondness of Germans for war and the chase in the twelfth and thirteenth centuries, it was little valued and, at times, even left to the butchers (carnifices), who opened the corpses of the great and embalmed them. If one of the nobility had been harmed by a surgeon when bleeding him, the surgeon was sentenced to a fine of 160 scudi, and in the case of death the law gave him into the hands of the relatives of the deceased, who could do with him as they pleased. The contempt shown for every phase of surgical work was particularly due to the papal Councils, which with the pretext, "*ecclesia abhorret a sanguine*," forbade the monks in the monasteries to perform surgical operations, although they had hitherto practiced surgery. Servants and tonsors were employed for these operations and the result was that they gradually became independent surgeons, and began to travel through Germany as itinerant rupture-surgeons and lithotomists. After the church convention in Rouen (1092) the monks were not permitted to wear a beard. Five hundred years afterward, Sigismund, Archbishop of Magdeburg, made regular trips *contra barbam*, and one time, when he gave an elaborate banquet in Mansfield, in 1564, he ordered all the beards, except the mustaches, of those present to be cut off; similar orders he gave in Braunschweig, Wolfenbüttel and Halle. After the accession of the youthful kings of France, Louis XIII. and Louis XIV., a beardless chin was considered an especial ornament. Consequently someone was needed to dress and shave the beards, which had their fashion, just as the cut of the clothes and the shape of the hats. Thus originated the *barber*. Gradually he, being a good follower of the church, was permitted to have a barber shop, journeymen and apprentices, and to practice surgery on a small scale, that is, bleeding, bandaging wounds and ulcers, etc. His calling was thought a very inferior one, for he, like the bath-keeper, was not recognized as a craftsman, and, like the shepherds and hangmen, was not considered of good repute. In the certificates of birth of the mechanics it was very explicitly stated that "bearer is born in wedlock of honest parents, not descended from serfs nor related to barbers or bath-keepers, not vandals, but of true German nationality."

The cause of this contempt lay in the fact that guilds and fraternities guarded their privileges very strictly, and barbers, and more especially bath-keepers, were not considered eligible to membership. This disbarment, resting upon groundless prejudice, could only be removed by law. The Emperor Wenzel took the first step in this direction in the year 1406, who, when he was rescued from captivity in Prague by the daughter of a bath-keeper and out of gratitude made her his mistress, declared that bath-keepers and bar-

bers were respectable. But Wenzel was an ex-Emperor, consequently his charter could carry no rights. As early as 1538, in the March of Brandenburg, the bath-keepers, after a required examination, were permitted to bandage and cure the wounds, and the barbers, that is, "those careful masters of the barber and surgical trade," were promised protection from the quack doctors; but it was not until 1548 that the imperial diet (Reichstag) in Augsburg declared them both eligible to the guilds. Their masterpiece (meisterstück) was the shapening of knives and scissors. Now the children of linen weavers, shepherds, barbers and so-forth, if they were legitimately born and had lived honestly, were received by all artisans without question. In the March of Brandenburg special guilds were formed for barbers and bath-keepers, having their own constitutions. In 1686, Emperor Leopold I. declared their profession an art, and placed it above the apothecary's in rank and authority, and changed the masterpiece (meisterstück) to the making of salves and plasters. As the beard gave rise to the barbers, so for her *bath*-keepers and her hospitals Germany has to thank the Crusades in the eleventh century and the leprosy which they introduced. The pilgrimage to the holy sepulcher gave occasion for the establishment of hospitals for the care of the sick pilgrims, and it is said that the first one was erected about the end of the fourth century. During the crusades several brotherhoods were founded which assumed the care and protection of pilgrims and attended the sick soldiers. Among the most noted of these was the Order of the Knights of St. John, the Knight Templars and the German Order. On their return home various princes brought with them certain members of these orders and commissioned them to erect infirmaries in their own states. Thus, in 1159, Albert I. brought some of the Knights of St. John to his margraviate of Brandenburg, where they established hospitals for the care of the lepers, who, after the return of the crusaders, became very numerous in Europe (in France in 1225 there were 2,000 hospitals for lepers, "Leproséries"), each one of which was endowed with 100 sols by Louis VIII. His son, Louis the Good, founded in 1260 a special hospital for the Egyptian blind. Soon the number of hospitals and cloisters was insufficient for the lepers and *bath-houses* were built, and the necessary bath-keepers were engaged, in order to prevent the spread of that disgusting skin disease through the general neglect of cleanliness among the upper and lower classes. The greater part of surgery gradually fell into the hands of barbers, but operations were generally left to the itinerant mountebanks. The charter of the bath-keeper extended only to bathing and cupping; later on, where he also undertook bleeding, the treatment must be done in their own homes, for they were generally not allowed to enter the houses of the patients. Subsequently bathing was much neglected and finally discontinued entirely and the bath-keepers took to practicing surgery, but much later than the barbers, not until the middle of the eighteenth century. They were permitted to do so publicly in several countries after having passed the examination required of the barbers. In Prussia, however, they were not allowed to undertake any surgical cases, except the treatment of wounds and chronic diseases.

In order to see what was expected of an honorable and educated barber and bather of the 18th century, read the writings of "the faithful Eckardt, the daring surgeon" of 1698. After many years of apprenticeship, they must visit large hospitals and journey to noted surgeons, then serve as field or ship's surgeons. A knowledge of Latin and modern languages as well as botany was important. Before all he must study anatomy, for "without it surgery is nothing," and he must make himself known to industrious scholars, 'not drain the beer glass.'" The lack of cadavers was supplied by the carcasses of animals, since if doctors did not shrink from studying them, then "an impudent barber's or bather's apt journeymen would not consider it beneath his dignity to follow them." For surgery, the books of Fabriz von Hilden, Paré, Würtz and Scultet were recommended. Among the sixteen different virtues of a barber, which the faithful Eckardt enumerates, the fear of God stands first. "He should be careful, prudent, temperate and ready to use both hands with equal dexterity, prodigal in nothing since foresight is one of the most beautiful adornments of a surgeon. No idler can accomplish anything, for the science of surgery demands the whole of a man. . . . By discreet encouragement he will awaken confidence in those disheartened. . . . A conscientious barber will not bleed a patient in order to get two or three groschen, unconcerned as to whether it is advisable or not. But many are such desperately bad knaves, that, if they are not paid promptly they will do the patient great injury so that they must serve him still further. . . . . He should not boast of his cures at the beer rooms. He must not handle his patient roughly as a pig handles a beggar's sock, nor tyranically abuse him when ill-tempered. He must discriminate between the gentler and coarser natures; he must ingratiate himself with men as he would with a dog. . . . He should not be so hard on his patients, that they would prefer to see the hangman rather than the barber. . . . He must consult the physicians and obediently follow their instructions. . . . His apparel is not to be adorned with ribbons, cords and laces, because cuffs and ruching are a great hindrance in bleeding. . . . He is not to ask twelve thalers, if he has earned but two. . . Arrogance seems most prevalent among barbers, as a common saying would imply: 'Barbers are proud animals.' It is astonishing to see what an amount of conceit is fostered by the master and his journeyman, making themselves very conspicuous on the streets and by-ways, the master with his projecting punch and solemn step as if the world were too narrow for him. . . . He must not cast envious glances at a successful co-worker, not take away a patient from another, but faithfully assist him when attending serious cases. I am surprised to see the great hatred and envy which the barbers entertain for the bath-keeper, and even the dirty-faced apprentices show among each other the beginnings of this developing hatred. . . . Not blindly is he to operate; my good friend, remember it is human flesh, not oxen or swine, and the skin is of priceless value. In serious cases he is to consult physicians and other masters. He, who has only learned shaving and yet wishes to be a surgeon, is startled as if plunged into hot water when called upon to attend a case; another stands as if he were fastened to the spot." Thus writes Eckardt.

The German surgeon of the 18th century or more strickly speaking the barber, for the path to practical surgery lay almost without exception through the barber shop, was in general exceedingly ignorant and unskilled. Nor is this so surprising, when his unhappy

education was no different from that of any workman. If there was a boy among the lower classes, destined to become a barber, he was apprenticed to a barber-surgeon when he had scarcely learned to read and write German in the public schools and had been confirmed. The parents pay a fee of 50 thalers to a demonstrator; 75 thalers yearly for board and lodging. Sometimes the district physician examined him to ascertain if he could write legibly and read Latin; if he could not he was refused. The Archbishop of Würzburg demanded that the young applicants be well behaved, with adequate intellectual faculties and bodily strength, with gentle heart, that they could read and write, be well instructed in Latin, and possess enough means for the purchase of books and instruments (1787). The apprentice learned to shave and then went from house to house, the whole day; the little time remaining to him, he had to sharpen his knives, spread plasters and pick lint, besides take care of the children and use the same light as the maid, for it would have been disrespectful to make use of the light of his principal's wife. He attended to all menial labor inside and out, and was in general the servant of the master and his journeymen. An advertisement gives the following description of his exterior appearance:

"Last Friday morning, the 7th of January, Christian Heinrich Springer, an apprentice of the surgeon and bath-keeper Mr. Bufe living in Jurusalem Street, secretly ran away, out of spite; he is 17 years old, fairly good looking, has a pointed nose, light brown hair, wears a bran new pearl-colored piquesche, with dark yellow buttons, a blue coat with red lining, blue vest, Manchester trousers and has on a new pair of boots; he who can furnish any information of the whereabouts of the rascal, will be rewarded." (*Spenersche Zeitung*, January 11th, 1774). After a time, the apprentice was taken to visit a patient and then the arts of bleeding, cupping, of giving an enema, of applying leeches, and sometimes of extracting teeth, were practically taught him. Since the master himself, as a rule, understood nothing of the subjects, he either gave no instruction at all in anatomy, physiology or surgery, although pledged to do so, or else his teachings were nonsense. The law passed in Prussia in 1734 required three years' apprenticeship for barbers, which time having been served he presented his master with the usual set of silver instruments; had then to be thankful, "that such a poor creation of God had even learned to shave a beard à la mode or spread a plaster." Before the apprenticeship was ended, however, an examination was necessary, but often the whole guild was too stupid, or too lazy to prepare one. Whoever the presiding principal of the establishment was, a miller, tailor or any other workman, signed the indenture of the apprentice, whereupon the apprentice became a journeyman. Now he went on his travels, once more going through the whole course of shaving. The journeyman lived at the home of his master and was not allowed to marry. When he had served some sixty or more customers, and now and then bled some one or bandaged a patient's wounds for his master, he received as wages his dinners and six or at the most eight good groschen a week. This paltry sum scarcely sufficed for even his most immediate wants; therefore he began to dabble an his own account and frequently developed into a careless braggart. Study was out of the question, because attendance at the lectures in the larger cities was not possible after their fatiguing day's work, the want of books for the purchase of which money was lacking, and with the disquiet prevailing in the house, and if a few of them very diligently began to study, they did themselves more harm than good because of their deficient education. Much of that which they studied they misunderstood; they crammed their brain with disconnected ideas and they became intolerable, arrogant gossips. After six or seven years a journeyman could be become a master. To attain this position he had to apply to a district physician, collegium medicum or a faculty, present his indenture and his certificate of time served as journeyman, and then pass an examination. The Prussian regency preferred an application from a city man to that of a peasant; then if a surgeon wished to settle in a large city, he must pass an examination in anatomy at the anatomical ampitheater of Berlin and take a course in operations. If he established himself in a village, no course of study was required, only an examination before the physician of the district.

The barbers and bath-keepers of Prussia, the first country to recognize the importance of regulating the practice of medicine, were under the control of the Collegium Medicum. This was founded Nov. 12, 1685, by the great Kurprince Frederick William, who, at the some time introduced the first medical code in Germany. The Collegium Medicum had the jurisdiction over all the health officers.

In 1724, under Frederick William's successor, the Kurprince Frederick III., the college attained its greatest activity and was made the Ober. Colleg. Med. (chief college), there being one such in each province. Its faculty consisted of a Minister of State, who was the principal, the body and court physicians, the district physician and the older practitioners in Berlin, the body surgeon and surgeon general, the court apothecary and three surgeons and two apothecaries. Beside this chief college and the provincial colleges, there had been since 1719 a so-called Collegium Sanitatis, founded on account of the plague that had broken out in Hungary, which was at first called pest collegium, because it was obliged to devise measures for protection against the plague, contagious diseases and cattle plague. In 1762, there was such a sanitary college in every province.

The greatest progress in the German medical system was due to the famous edict of Sept. 27, 1725, a memorial of King Frederick William I., perfected by Eller and Stahl, which decreed everything possible at that time and contained very appropriate precepts, which did not undergo a radical revision until a hundred years afterward. Similar medical institutions soon sprang up in various German cities, in Braunschweig in 1747, in Dresden in 1768 and in Hildesheim in 1783. The above-mentioned edict provided that the barber and bath-keeper "should lead a righteous, temperate, retired and sober life, in order to be at their best when their services are required, be ever ready in the day time or at night to assist their neighbors intelligently with their skill and scientific knowledge . . . and during the time of a plague and death, to be ever ready to respond when called to the hospitals." Similar in substance was the ordinance by Marie Theresa (1770): "Surgeons and bath-keepers must live in a moderate, honorable and God-fearing way, exercise as much diligence and precaution as possible, be indefatigable day or night and must willingly enter the hospitals in time of plague and death.

For their pains they are to receive a reasonable recompense, etc."

The masters attended to the mechanical part of their work and prepared all external remedies themselves when they were not obliged to procure them from an apothecary. Beside this they dabbled in medicine without permission, knowing nothing at all of the science. Those who were caught in such dishonorable business were fined twenty thalers or received corporal punishment, and if they led a dissolute life, or in case of drunkenness, their concession could be taken away from them. In case the barber's trade was not lucrative, he endeavored to fill other positions beside; for instance, it is said that Henckel's father was surgeon, municipal judge and postmaster at the same time. Barbers were so envious of each other, that one of them would begrudge a piece of bread in the hands of another, as the following saying of the time verifies: "A potter is hostile toward a potter, a singer to every singer." Purmann said in his "Lorbeerkranz" (paper) that in order to obtain the patrons of some of their colleagues they practice foul means and tricks along with their trade.

The bath-keepers, however, did not rank with the barbers in Prussia, where the former were subject to a heavy penalty for calling themselves surgeons and where they were not allowed to use more than four basins; not until the year 1779 were the bath-keepers united with the surgeons and at the same time the bath-keeper's guild was incorporated with the that of the barbers.

That young men of ability were not desirous of entering a class of such inferior rank as the barber-surgeons, was not surprising. As late as 1790, good surgeons were rare in Germany. The ratio was everywhere one skilful surgeon to ten who were barbers, skilled only in shaving and cupping. Before the masses they tried to cover their gross ignorance, but the poor unfortunates who fell victims to them were made more miserable than they had been. Once Siebold was called upon to examine the country surgeons of a prominent state in practical surgery and was not a little astonished to find that there was scarcely one of fifty who knew the first principles for the cure of wounds. The mechanical part of the work was the remunerative one, therefore the most important; the scientific was only incidental. Surgeons were compelled to do shaving, which in reality belonged to the duties of the hair-dresser; for aside from the few privileges granted to body and court surgeons, also to the surgeons of the royal hospitals by the order of the cabinet, no surgeon, however skilled in his art, was allowed to practice the same unless he was the head of a barber shop and bath-house, kept assistants and apprentices and belonged to the barber-guild. In case of the demise of a surgeon in Austria, his widow had to procure a registered pharmacist within six months, or she had to marry one in order to preserve the license for her apothecary (1773). Intelligent men complained, at the beginning of the century as well as at the end, of the melancholy fact that German surgeons were educated in the barber shops, lamenting bitterly that surgery should be associated with the barber trade. However, the union remained; no one wished to stir up a wasp's nest. One needs only to read the counsels by Plenck how to educate useful surgeons for the state, to see that mere talking could not better the condition of affairs; for instance, it was said that the apprentice was to be 16 years old, must possess genius and understand Latin, and above all things study anatomy and physiology; but for the latter, only diligence and a good memory are necessary and little genius, and can be acquired by even a dunce. In the eighteenth century there was no one to undertake a thorough revision and nothing to hope from the Reichstag under the political conditions then existing. Among the conditions was the fact that the social position of surgeons was necessarily on the lowest round of the ladder. In the middle of the century, the practice of surgery was not considered a business for an honorable man, and barbers' and apothecaries' journeymen were not permitted to carry a sword. A surgeon was not admitted into good society nor tolerated in a circle of physicians. If his treatment resulted unfavorably, he was pursued by hatred and animosity.

C. C. von Siebold bitterly deplored the position of surgeons. He was very enthusiastic when he began practicing, had had considerable experience in surgery during the Seven Years War and in France, but nevertheless had to contend with great difficulties before he could enter society, with his profession. His good will and his high intentions were scorned and frustrated. Beside this the peasantry were greatly prejudiced against operations. Siebold relates that the operation for cancer of the lip was so frightful to the ordinary man that he refused to submit to it, and another man with hydrocele endured two punctures every year for twenty-eight years, rather than permit an operation for a radical cure. Soon after extirpating a cancer from the breast of a woman, Siebold discovered that a new one had formed in the armpit, necessitating another operation; so to avoid a sensation, and that the public might not smirch his reputation, he removed his patient to another town, where he successfully performed the operation. The physician boasted of his own education and disdainfully looked down upon the surgeon and surgery in general, a very natural consequence. Even Zimmermann considered the relation of surgery to medicine the same as that of geometry to higher physics. There certainly were good reasons for watching the barber, considering the great dangers to which the public were exposed when, after years of wandering about plying his razor, he suddenly as a master undertakes to treat fractures, luxations, herniæ and maternity cases! Therefore the district physician had to look after the books and instruments used by the surgeon, and had to see that the pupils were properly instructed by him, and not detained from their studies by agricultural labor or domestic duties. In this control there was one evil so great that every contention of rank between physicians and surgeons appears ridiculous and absurd; the physician understood little or nothing of surgery. While at the university the physician was obliged to content himself with theoretic lectures, and he seldom or never saw surgical patients and never laid a hand on one. The very famous physician, G. E. Stahl, wrote an Introduction to Surgery which is not read today, for in it, among other things, he thought little of the difficulties connected with trephining and bronchotomy, but was more concerned about the healing of a wound in the trachea, and agreed with the surgeons as to castration for rupture. Even at the end of the century there were comparatively few physicians in Europe who could correctly diagnose important surgical cases. The dentists of Germany were just as poorly off. A. G. Richter said:

"Dentist is a despicable name in most German ears, and dentistry with us is a profession which demands nothing more than the skill to draw a tooth; one is almost ashamed to concern himself with it, and he the more willingly leaves it to the unskilful and ignorant, the more generally people neglect the proper care for the preservation of the teeth."

Now, imagine a consultation between physician and surgeon. Under penalty of losing his practice, the state ordered the latter to call in a physician in all complicated surgical cases. In some towns, they were obliged to notify the authorities when assuming charge of a serious case, so that they could caution the patient to seek advice from greater men. In a consultation the physician demanded the control of the case in question and reserved for himself the right to judge of it and prescribe the surgical remedies required. As a Doctor of Medicine he claimed a higher rank, and he did not even consider a surgeon who had obtained his doctorate as his equal. His dignity would have been lowered had a surgeon had the last word; in general, he would not consult with the surgeon but simply expected his own directions to be followed. Many obeyed the physician in order not to offend him. A qualified surgeon finally acted as his judgment dictated, and if called in first to a serious case, revenged himself by not summoning a physician until he had applied the bandages. The many disputes resulted in disagreeable scenes, and if neither party gave up, the matter ended in a lawsuit.

An essay by Stahl on "The Duties of a Physician when Attending Surgical Cases," strengthened the physicians in their determination to oppress the surgeon as much as possible. If so noted a man did not encourage the surgeon, but subjected him almost completely to the commands of the physicians, the difficulties with which surgeons had to wrestle to raise their standing can well be imagined. The treatment of internal diseases was allowed the licensed physician, while the surgeon was permitted to practice surgery and obstetrics, which in Prussia were connected with each other till 1791. If a physician wished to practice surgery or any part of it, as, for instance, couching for a cataract, he must get a permit from the collegium medicum. In the country, on account of the scarcity of physicians, a separation of the two sciences could not be very strictly maintained; there bath-keepers and barbers treated everything that came their way. When no physician had settled in a village or town, the surgeon also treated internal diseases, but with the restriction that he was to prescribe no strong purgatives or emetics, opiates or narcotics, etc.; in syphilis he was not to employ a salivating treatment, and in high fevers not to do any bleeding. Every district had its special surgeon, to whom several villages were assigned, where he alone had the right to keep journeymen and apprentices, and to do the shaving and cupping. These official surgeons were expected to possess sufficient skill to attend to all operations, as tracheotomy, trephining, herniotomy, when they could not be postponed. The restriction of freedom in the trades was also extended to the Prussian capitals, where only twenty German and six French surgeons were allowed to practice (1725), beside the court and private surgeons. In lawsuits, surgeons were also summoned. The six city surgeons of Berlin, under the direction of the city physician, had to examine the prostitutes, treat the poor, and in case of sudden casualties to render immediate assistance; at first, without any recompense, but later, in 1780, for a salary of 100 thalers.

Until the year 1800 every German surgeon carried on a medico-legal business, but after surgery was separated from medical law, had to undergo a special examination. On account of the different degrees of education among the surgeons they were divided into classes, wherein every petty state being distinguished, exercised a sovereign right different from its neighbor. The Bishop of Hildesheim had three divisions of surgeons: 1. Those who practiced all branches of surgery, called official surgeons (Amtschirurgen). 2. Those who treated only fractures, luxations, wounds, swellings, inflammations and so forth. 3. Those who shaved, cupped and bled. The promotion into a higher class depended upon a new examination (1782). The earldom of Lippe possessed: 1. The medical surgeons, who were permitted the entire practice of surgery, with the condition that in important operations a physician must be summoned; they could also offer immediate help for internal diseases. 2. The licensed surgeons or barbers, who attended only to the surgical diseases, for which they had been especially examined. The examination was conducted by the city physician, who should "examine so critically, with a gentle manner, not forbidding nor peevish" (1789). In Austria in 1805 the surgeons were classified into: 1. Doctors of surgery—an Austrian creation to which we will refer later—they were required to show knowledge of general medicine, just as the doctors of medicine were required to have a knowledge of general surgery. They had the same rights and the same duties. 2. Medico-surgeons, who could practice surgery in all its phases and were permitted a restricted practice of medicine, but obliged to summon a physician when performing important operations. 3. The bath-keepers for inferior surgery. Klysterizing, except in surgical cases, was expressly forbidden the Austrian surgeon and was the business of the apothecaries. In order to break up the dispute between barbers and the bath-keepers, both were usually called surgeons since the year 1773 and all indentures were worded the same way. With the physicians and apothecaries they were placed at the assemblies in the first class for their yearly requisitions, but were put on the fourth class list for their payment of war taxes, which in their case amounted to 12 guilders out of the 100 guilders. Considering their inferior social position, the income of surgeons was very good, if we compare the surgical tax of that time with that of eighty years afterward, for the Prussian tax of the year 1815 was still in force with the exception of a few changes in the 1876 tax.

The following are some of the fees allowed (Mgr.= about 23 cents U. S.; Thlr.=about 70 cents U. S.):

	Lippe, 1789.		Prussia, 1815.	
For treating a plain wound one week (1 bandage)	12–18	mgr.	⅓–⅔	thlr.
For treating a complicated wound one week (1 bandage)	24 mgr.– 1	thlr.	⅓– 1	"
Trepanning	2	"	8 –12	"
Setting of a dislocation of the upper part of the arm	4	"	3 – 6	"
Setting of a dislocated thigh	8	"	10 –20	"
Treatment of a plain fracture of the arm or foot of a young person (setting)	4	"	1 – 3	"
Treatment of a plain fracture of the arm or foot of an old person	5	"	1 – 3	"
Operation of a cataract	8	"	8 –15	"
Operation of a cataract on each eye	12	"	12 –22½	"
Operating a fistula on lachrymal gland	6–10	"	6 –10	"
Operating and treating cancer of the breast	10	"	8 –15	"
Operation and treatment of an ulcer on the seat	4–10	"	5 –10	"
Operating a polyp in the nose	4– 6	"	6 –10	"
Operation and treatment of a cancer of testicle	8	"	10 –20	"
Operating and treating of aneurysm	8	"	6 –12	"

	Lippe.	Prussia.
Amputating the thigh and treating the same	15 Thlr.	8 –15 Thlr.
Amputating the arm and treating the same (upper part of arm and upper of thigh)	10 "	10 –20 "
Amputating the arm and treating the same (forearm and lower part of thigh)	1 "	2 – 4 "
Amputation of fingers and toes with treatment	15 "	20 –50 "
Lithotomy of adults	8 "	20 –50 "
Lithotomy of children	6 "	10 –20 "
Herniotomy of adults	4 "	10 –20 "
Herniotomy of children	1– 3 "	3 – 5 "
Price for a cramped fracture	4 "	5 –10 "
Operating and treating paracentesis of the chest	24 mgr.	2 – 4 "
Operation of phimosis	5 thlr.	6 –12 "
Tracheotomy	1 "	½–1 "
Setaceum	6 mgr.	½–½ "
Enema	12 "	½–1 "
Tobacco enema	24 "	1 – 2 "
Catheterismus (douche) for men	18 "	½–1 "
Catheterismus (douche) for women	Repetitions half price.	
Extracting a tooth	3 mgr.	½–⅔ thlr.
Bleeding	4 "	½–1 "
Putting on leeches (which are thrown in)	2 "	1 – 2 "
Putting on leeches (which are paid for)	1 "	

As a further illustration, a comparison of prices of the necessaries of life of that time (during the war years of 1740–65) and today will serve, which stand at a ratio of 1 to 4 (One kreuzer equals 1-10 cent United States, florin equals 25 cents United States):

	1740–65.	1872.
1 pound beef	4 kr.	19 kr.
1 pound carp	7 "	22 "
1 pound codfish	5 "	14 "
1 sheep	1 fl. 40 "	8 fl. 40 "
1 calf	1 " 30 "	10 " 30 "
1 pound of rice	5 "	10 "
1 pound of raisins	7 "	28 "
A quantity of barley	5 " 0 "	14 " 0 "
1 glassful of brandy	" 20 "	" 40 "
Total	8 " 58 "	35 " 23 "

Nothing worked more injury to the art of healing, or laid a greater obstacle in the way of the development of German science, than the separation of surgery from medicine. This was unknown to the Greeks and Romans, and if the ancients did divide the science of medicine into dietetics, medicine and surgery, they had no such separation in mind. One person carried on the three. The separation existed since the time of the council, which, as has been said heretofore, forbade the clergy to perform any bloody operations. Various causes helped to maintain the separation. Among them were the continued oppression of the Roman hierarchy, the papal decrees, which in consequence of the contempt for surgical work, formerly separated medicine and surgery. For example, the University of Paris refused to admit a student who had not foresworn the study of surgery; and, furthermore, the denunciation of the study of anatomy by the church retarded the progress of surgery. Each profession was considered so difficult that but a few could at the same time master and practice the two, and many of the city physicians thought the study of surgery too burdensome and disgusting. But the main reason was that the physicians had no desire to be associated with the surgeons, whose station in life was so little respected. So it very seldom happened in Germany that a physician was also a surgeon, and it was an extremely difficult matter to eradicate the deep-seated customs. The physicians watched with Argus eyes all the efforts made in that direction.

When Mederer, in 1774, was appointed professor of surgery in Freiburg im Breisgau, he delivered an initial address on the necessity of combining medicine and surgery. In consequence he was persecuted by the public; the physicians stirred up the medical students and surgeons against him; they threatened to assault his house and to abuse him during the lectures. He nevertheless clung to his assertion and did all that he could to uproot this prejudice. When, in 1796, twenty-two years later, he took his departure from his pupils, he referred to the above incident in his last lecture. The students serenaded him at night and sent a deputation to beg pardon for the affair. Mederer thanked them and once more assured them that the time would come when both sciences would be united. He himself would not see the day, but would die unconcerned, in as much as the new Constitution of France contained the fundamental principle to combine medicine and surgery, and the Royal Sanitary Commission of Vienna unanimosly resolved in favor of their union. The subject once opened became the burning question of the day and prominent men urged the connection.

The association of the two sciences was indeed close and their boundaries entirely undefined. History showed that the healing art, when separated, always suffered a decline and all classical scholars of earlier times were arrayed in favor of the union. It was desired that no other difference except the practice of his special profession might exist between the physician and higher surgeon, and that the former ought to know surgery theoretically and the latter the principles of medicine. Indeed, in country practice and in war it was not possible to maintain such a separation. A. G. Richter repeatedly remarked that no one could be a good surgeon who was not a physician at the same time.

As time passed on, this prejudice among the physicians began to wane, because men like Richter, Siebold, Mursinna, Loder and others in person set an example, showing the possibility of the combination. In 1797 the Electoral Academy of Erfurt called for a prize essay on the subject: "Is it necessary and possible to combine medicine and surgery theoretically as well as practically?" Of the fourteen papers submitted twelve decided in favor of the union, one against it and one was doubtful. But the wise men of Erfurt were still so set in their prejudices that they awarded the prize of twenty ducats to the only one who had spoken against the question. This one was the district physician of Hanover, J. H. Jugler, whose reasons for the most part would scarcely stand a test, and a portion of them were truly absurd. He deemed it slavery if men like Werlhoff, Frank Zimmermann and Wichmann were to perform bleeding, apply leeches and to apply a seton; not even the country doctor had time to attend to these when an epidemic raged. It would be cruel to take the bread of the bath-keeper, and quite unheard of to demand that all resident surgeons should first study medicine and the physicians should learn humble surgery. Moreover, he maintained that there was a great lack of institutions where young men could be practically trained in both departments, and other like arguments.

The suggestions that were made to elevate surgery were of little use, because they forgot to uproot the evil. The request was made that apprentices be excused from playing nurse and doing the work of a common laborer, and that the journeymen should receive stipends to further their scientific education, yet the instruction imparted would be of little avail, as they had had no school training and no education, and many scarcely understood their mother tongue. It was demanded that even the shops of barbers who died should be bought by the prince and he in turn should sell or rent it to a hairdresser who had proven his ability to shave a beard.

The great step toward improvement lay in the abolishment of the guilds and fraternities, wherein Vienna, in 1783, set the good example. There they abolished the fraternity of the surgeons and declared that shaving was the business of the hairdresser. The journeymen continued for a while to live from the customers of their masters, but attended the surgical lectures until they received a position as surgeon. Not until the beginning of the nineteenth century did the rest of Germany catch the spirit of this new movement. They now demanded that a person be both physician and surgeon. In Bavaria the corporations of the bathkeeper and surgeon were abolished in 1804 and no one was permitted to practice surgery without having studied medicine (1808). In Prussia the rules established in 1786 regarding the settlement of physicians and surgeons were annulled in 1808, so that they could establish themselves wherever they pleased and so enjoy their freedom of trade. In the year 1811 the barber license was no longer essential for the practice of surgery; shaving of the head was entirely separated from the practice of surgery and open to everybody; the privileges of the barber were abolished and to pursue the barber trade only a license was needed.

(To be continued.)

INFANT MORTALITY DURING LABOR, AND ITS PREVENTION.

BY Z. LINCOLN WHITMIRE, M.L., M.D.
URBANA, ILL.

(Concluded from page 357.)

Cord around some part of the child.—When such a case occurs the hand should be placed in the uterus and the loops of the cord drawn down and slipped over the part encircled. When this is done delivery may proceed normally.

Knots in the cord.—This is of rare occurrence. The knots are made early in gestation, as a rule, the fetus then being small enough to pass through the loops of the cord. In such cases the child is usually dead before the end of gestation, and the first indication that trouble exists is the occurrence of premature labor. If the knots occur later and are not tight enough to retard circulation, an early diagnosis is almost impossible. As soon as the uterus begins to expel the child the knots tighten, circulation is checked and a stillbirth is inevitable. If the physician can detect by the color of the presenting part that the circulation is being interfered with he may (in very rare instances) be able to deliver with sufficient promptness to save the child.

Prolapse of the cord occurs fully as often as any other complication that involves the cord. It is usually the result of a relaxed condition of the uterine walls, heavy cord and an unusual amount of motion on the part of the child, and after the membrane ruptures it is very easily diagnosed. Before the membrane ruptures it may be detected between pains. When such a state of affairs is present the child's life may be lost by the cord being compressed between the presenting part and the walls of the passage, which it is the duty of the physician to prevent. A case of prolapse of the cord may be handled in one of the following ways: 1. The cord may be pushed back and held there, if necessary, while labor progresses normally. 2. The child may be delivered as rapidly as possible, paying little attention to the cord. If the first plan is adopted it will be found possible in some cases to replace the cord so that it will remain throughout the delivery, though this is rare. It is the rule that the easier the cord is replaced, the less likely it is to remain there. Sometimes it can be held there with the fingers, but the best plan is to tie it to a catheter and push it back to its proper place, where it may be held till delivery is complete. However, even that will be found to be impossible in some cases and the second plan will have to be adopted. My experience has been that the greater number of living children may be secured in these cases by delivering as rapidly as possible, using forceps if necessary, and paying no attention to the cord except to use it as an index to the pulse of the child.

Placenta previa is a complication that fortunately is very seldom met with, for it is fully as dangerous to the mother as to the child. The child's life is endangered if the placenta is torn from the uterus before the child is in a position to use its lungs, because it then dies from asphyxia, while the mother is apt to die from loss of blood.

When a case of placenta previa is present it is usually recognized early by the severe hemorrhages, which begin about the sixth or seventh month. They are frequently so excessive as to bring on premature labor or to oblige the physician to do so. Hence few cases of placenta previa reach full term, but when one is found at full term it is to be handled as follows:

Introduce two fingers within the os and detach the placenta from the walls of the uterus for a distance of two or three inches all around, and if necessary, push the placenta to one side.

Rupture the membrane, and if there is an unfavorable presentation turn the child so as to make the breech engage in the os; or if there is a head in the first instance that presents, the forceps may be used if a speedy delivery is indicated, which is usually the case.

A partial detachment of the placenta may sometimes check the hemorrhage. The strength of the woman is the main thing to care for and that may be done by the usual means.

After waiting in vain a reasonable time for the uterus to expel the child the physician may deliver by art.

It will sometimes be found necessary to dilate the os, and this may be done with the dilating instruments, though in most instances the fingers will prove not only to be sufficient but to be the very best for the purpose. Watch carefully for post-partum hemorrhage, for it is apt to follow a case of placenta previa.

This brings us to the third and last general class of complications, viz.: Those located in the child itself. This class has three divisions, the first being:

Large head.—By this is meant a head that is too large to be delivered naturally. Such cases are not of uncommon occurrence. They may be easily recognized by the manner in which they progress. As far as their effect upon the child is concerned and as to the manner of treating them, they are very similar to cases (above cited) of deformed pelvis and cases of obstructed passage. That is to say, the child's life is endangered by uterine contractions, and in order to deliver the child successfully the obstruction must be removed or circumvented. Since the child's head is the obstruction (owing to its size) we may not remove it, but we may remove the size of the head by compressing the skull with forceps. When this can not be done and a living child is to be secured, symphyseotomy or Cæsarean section must be performed.

A large body offers the same dangers and is to be treated in the same manner as a large head, except that forceps can not very well be used to advantage. It is claimed, however, that when the breech presents the forceps may be used with good effect; but that is also disputed by equally good authority, and with reason, because the breech can not be compressed like the skull. It has also been advocated that blunt hooks should be used in the axillæ of a large-bodied child, after the head had been delivered, but experience will soon teach one that artificial hooks of all kinds should be avoided and if it is necessary to use a hook the fingers will be found to be all that is needed.

Face presentation.—In a face presentation the head is thrown back so that the occipital bone rests on the base of the neck, while the chin is thrown forward. This presents the longest diameter, and with a medium-sized head in this position an uninterrupted delivery is impossible. Before delivery can be effected the head must be righted so that the crown presents. This may be done by pushing the body back so that the head can be moved to the proper position. Sometimes it may be accomplished by allowing the woman to assume the knee-chest position, when the head may be moved after the body has gravitated toward the abdominal cavity, while at rare intervals the body will slip back between pains and the head come down of its own accord. When the proper position of the head has been acquired the delivery may proceed according to existing circumstances.

Breech presentation is an abnormal position that is quite common. It is easy to diagnose even before the membrane ruptures, and after that it is almost impossible to mistake it. In a case of this kind there is no danger of the child's life till after the body is born and head and cord are passing together over the perineum, when the danger becomes quite imminent. While in this position the cord is compressed so that circulation through it is completely stopped. Even when labor progresses with normal speed through this danger point the child sometimes dies, and when anything interferes with its progress at this point the child is sure to be killed unless something is done to prevent or to lessen the danger. Hence it is the duty of the physician to see that the labor proceeds through this stage rapidly and without pause, and before it reaches this stage he should see that everything that is necessary to be used in resuscitating the child is placed close at hand.

Breech presentations are slower than head presentations, on account of the soft and yielding character of the breech not being so well adapted to the work of dilating the os nor to holding the ground that has been gained.

This slowness of labor and the prolongation of the pain and suffering through which the woman has to pass are great causes of weakening her resisting powers, so that when the body is born, and the parts contract down around the neck, the relief experienced is so great that it is almost impossible to secure another pain. Hence a very possible result at this period is the occurence of uterine inertia, and it could not occur at a time when it would be more apt to prove fatal than just then. When the body and legs are born they will serve as an excellent register of the child's enduring powers, and for this purpose they should be kept constantly under the eyes of the physician.

It is always best to wait a short time for the uterus to act, and it is also a very good plan to administer to the woman some warm drink or a teaspoonful of brandy, but the moment the child begins to lose its healthy pink color the physician should begin to deliver the head. Seldom will he have time to apply the forceps; but even if he has time, it is far better in these cases to use the forceps nature has given him—his hands—for they are far superior to any that man has contrived when cases of this character are to be handled. Allow the body of the child to rest upon one hand while the other is placed so that the fingers, which are along the sides of the child's nose or in its mouth, may have a good hold. Then by pulling the chin well down upon the breast and guiding the direction of the traction by moving the body with the other hand, the child may be rapidly and easily delivered. If it is not already dead, measures may be taken to resuscitate it.

Next to the danger from the pressure on the cord is that of an arm being pushed down along by the side of the head. In a case where a small child is being delivered by the breech this might serve as a protection to the cord, but it is not usually safe to allow it to remain in this position. It must be replaced. The physician who allows such cases to continue without replacing the arm is sure to see a great majority of those children born with a crushed arm or skull, or a crushed or dislocated shoulder.

Twin labor is generally not a dangerous case, though it is always more or less exciting. One or both of the children are usually small enough to render the delivery an easy operation, and when any trouble comes it is because they become head-locked or get wedged in the passage. When both attempt to enter the passage at once they may become wedged. This may also occur when one has reached the outlet and the other tries to enter it. When one child is born by the breech its chin may catch under the chin of the other child, which condition forms what is known as the head-lock. In either of the above positions they check the progress of labor till something is done to remove them from their locked position, and if they are left alone too long death will follow from uterine pressure. To avoid this, the physician must do as follows: Push one child up, if possible, and allow the other to pass. Should this be impossible, one child should be sacrificed to save the other. This question may arise: Why not perform symphyseotomy and save both children? It is easily answered. Twin labor is not the natural labor of the human race, and since it is an abnormal condition it is probably responsible for the fact that one of the twins usually dies, and sometimes both. Hence, inasmuch as it is the rule for one of them to die, it is not good logic to advise the mother to subject herself to the dangers of an operation that, after all, is apt to result in the loss of one of the children, when by sacrificing one of them in the first instance she will be free from those dangers.

This completes the nineteen main causes of infant mortality during labor and the discussion of their respective merits, and after a careful reading of the whole it can be seen that the causes of death and the remedies for each complication may be expressed in a very few words. Most of the dangers to the child's life are from uterine pressure, and the remedy for all of them is a prompt and rapid delivery. The exceptions to the causes are as follows:

1. Uterine inertia.—With this the child dies, be-

cause its head is left too long on the contracted condition necessary in passing over the perineum, or, in a breech presentation, from pressure on the cord at the same period in the case.

2. Short cord.—Here the contractions of the uterus are indirectly responsible for the trouble and produce the main cause of death, which is the rupture of the cord (asphyxiating the child before it is able to use its lungs). The tension of the cord may also stop the circulation through it in cases where it is shortened by knots or being wound around some part of the child.

3. Placenta previa.—In this the child dies from asphyxia, caused by an insufficient connection between the placenta and the uterus.

As mentioned before, the remedy in each case is a prompt delivery. That does not mean that the forceps are to be used regardless of circumstances. They are to be used only when absolutely necessary. Remember that forceps are to be used to save life and not merely to save time. Make it a rule, if you can, that your labor cases must be placed under your exclusive care before the eighth month of gestation.

Let every examination be thorough. Do not examine your patient too often, but at the same time do not allow such a caution to prevent you from being thoroughly informed as to the progress and condition of the case.

Through the whole of the confinement you should be cool, without being frigid; gentle, without being timid, and rapid, without being hasty. In short, if there is one case more than another in the whole field of medicine and surgery that every attribute of the true physician is needed to treat properly, it is that case where he is at the bedside of a woman who is about to become a mother.

By bearing these thoughts in mind and having a thorough knowledge of the subjects herein mentioned, with the ability to make a practical application of that knowledge, there is no doubt that any intelligent physician can meet and successfully handle any case of labor, be it ever so complicated.

Fourteenth Biennial Report of the Board of State Commissioners of Public Charities for the Years 1895 and 1896.

ARTHUR R. REYNOLDS, M.D., PRESIDENT.

(*Concluded from page 366.*)

At the last session of the legislature a law was enacted authorizing county judges to take children having no parents out of poorhouses and to place them in homes, without cost to the county. It was believed by some that this law would remove the children from the almshouses, but it has failed to do so, and can not touch the class of cases above referred to, in which vicious and irresponsible parents compel county officials to maintain their children in the almshouse year after year. In preparing this report, the Board sent a letter to every county judge in the State, as follows:

"1. Will you please state how many, if any, children you have released from almshouse and placed in homes under the statute approved June 21, 1895?

"2. Will you please make any suggestions you can as to needed changes in the law regarding destitute, neglected or dependent children?

"A reply at your earliest convenience will be a favor to the State Board of Charities. Kindly answer upon this sheet, if practicable, and forward in enclosed envelope."

Replies were received from fifty-five judges. In fifty-four cases no use had been made of this statute. In one case one child had been committed under this act.

In a few cases suggestions were made by county judges. We quote as follows:

Hon. Chas. H. Donnelly, McHenry County:

"I would suggest that more power and authority be given to the county judge in regard to the control of dependent boys, and some of the power which is now vested in the trustees of training schools be taken away. In my opinion, the County Court ought to be vested with full power to release from such institution any child whenever, upon a proper showing, in his opinion such child should be released."

Hon. Rufus C. Bailey, Winnebago County:

"I would suggest a change giving authority to the Court or some proper tribunal, for instance the Judge and Chairman of the County Board or a committee appointed by the County Board, to place such children in private families, and when necessary to pay for their care in such families for a reasonable time and charge the county with the same."

Hon. Orrin N. Carter, Cook County:

"I believe the law regarding dependent children should be changed in such a manner that the authorities managing industrial and training schools should report to the County Court of each county once every six months, the disposition made during the six months last past before such report, of the children committed to the school from such county.

"I think I should also be in favor of an amendment to the law, forbidding the keeping of children in an industrial or training school longer than, say, one year, without an order of the Court which committed the child to the school, permitting on proper showing such child to be kept a longer period of time."

Hon. Colostin D. Myers, McLean County:

"I think it were well if the law relating to homes or schools for dependent children was amended to allow the court in which the proceedings for commitment are had to retain jurisdiction of the case with power to discharge or vacate the order of commitment upon proper showing.

"Also that provision be made that the court may by summary process compel a parent to contribute to the support of the child and the expense while it remains an inmate.

"In more than one instance I have known that parents were unfit and do not care to control their children, but have means whereby they could and should be compelled to support them. While the salvation of the children should be of first concern, yet it is an imposition upon the public to relieve the parents of their natural and proper burden if they have means."

Hon. Robert H. Lovett, Peoria County:

"The law with reference to dependent children should be changed so that girls past the age of 13 taken from houses of ill-fame should not be sent to the same industrial school with virtuous children. *Virtuous* children should not be compelled to associate with *lewd* ones. I will not send them there. I refused yesterday to send a wayward girl (16 years of age) to our Industrial School. The trustees of these schools should be *compelled* to find homes for children in a certain number of years. They get children *in* and never get them *out*. This means a great expense to the county.

"The Home should be under the direct control of the Board of Public Charities and the Board of Supervisors."

Hon. Carl E. Epler, Adams County:

"Dependent boys, and boys under 10 years of age, stealing and not liable as under age to commit crime, need attention. The law provides for their being sent to industrial schools, but provides no schools, leaving that to private enterprise. Lack of room for such boys and lack of proper attention and care will impose them on the State as paupers and criminals if not cared for by the State."

Hon. Isaac Hudson, Moultrie County:

"I have had but one such case called to my attention under the new law and the law did not apply to it because the father of the children is living. The circumstances in that case were such that I believe some amendment is needed to make the law fit such conditions.

"The children were taken to the poor farm and left by their father. I think if possible the law should be amended so as to fit cases of abandonment, and in case a parent on account of worthlessness or dissolute habits fails to provide for his or her children, it should be regarded an abandonment. Such children are frequently in a worse condition than if they had no parents living, and the future welfare of themselves and the community requires that they should be provided with better surroundings."

INDUSTRIAL SCHOOLS.

The laws under which the industrial schools of the State exist, were enacted because of a profoundly humane and generous feeling. They are a recognition of the fact that the child of neglect must be cared for in new surroundings, if he is to become a useful citizen and not a menace to the community. So rapid has been the growth of the State, and unfortunately

so correspondingly rapid has been the growth of a class of dependent and neglected children, that the great industrial schools, especially those for boys, are sadly over-crowded, and their proper and legitimate work rendered difficult by the failure of our present law to provide the judge with authority to dispose of the child in any way save by sending it to an industrial school.

The schools have an absolute power of discharge, which is necessary in certain cases, but which is liable to abuse, since the child who may be discharged from the school for a good and sufficient reason is not remanded to the court under the law, but is left in the same situation as before he was declared dependent. A case was recently brought to the notice of this Board, supported by sworn statement, in which the County Court, after a full hearing, adjudged dependent a boy of 6 or 7, directing the father to pay the board of the child at school. The father was known to be irresponsible financially. Both parents had been proven in court to be improper persons to have the custody of the child, yet the mother applied to the officer of the school for the child and he was given back to her. Thus upon the same day upon which the court had determined that the mother was an unfit person to have the child, and as compelled under the law had confided the child to the guardianship of the school during his minority, the school abandoned the guardianship to this same parent. While we trust that such instances are rare, we submit that the possibility of their occurrence shows the wisdom of the county judges above quoted in advising that the powers of the county court be extended.

We believe that such legislation as we have advised above is entirely in the interest of the proper management of industrial schools. The existence of the industrial schools in Illinois renders unnecessary the establishment of the State School which might be necessary if the industrial schools did not exist or could not be utilized for temporary care in cases demanding it. The legislation advised will protect the industrial schools in their legitimate work and tend to prevent the over-crowding now so prejudicial to their usefulness.

Quarterly reports under the headings shown below for the schools for boys and girls respectively are now filed with this Board.

St. Mary's School at Feehanville now cares for nearly 400 boys. The economy and efficiency of its administration is most admirable. It needs, in our opinion, enlarged buildings, so arranged as to afford better opportunity for separating different classes of boys. It also needs some improvements in the plumbing and bathing arrangements, especially good and sufficient bath rooms. The location of this school upon the Desplaines river is ideal.

The school at Glenwood has about 250 boys. It has the advantage of a system of separate cottages, which permit somewhat more personal supervision and separation of inmates. The location here, too, is excellent.

Chicago Industrial School for Girls, on 49th and Prairie Avenue, is an admirable well ordered institution. It cares for an average number of about 163. The school teaching is above the average found in such institutions, and there is a careful use of the text-books used in the public schools, which we specially commend. The industrial work is good and practical, and the children seem well cared for.

The Illinois Industrial Training School for Girls at South Evanston has much improved its grounds and has erected a handsome addition to its buildings since our last report.

The Industrial School for Girls at Peoria has an average of about 36 inmates.

It is the opinion of the Board that all of the schools which endeavor to place girls out in country homes, should also make a point of teaching them dairy work, the care of poultry and gardening, and should endeavor to interest them and make them proficient in those occupations which pertain to country life. And for this reason we consider that such schools should be situated in the country. We append below statements of the industrial schools above named.

EDUCATION AT THE SOLDIERS' ORPHANS' HOME.

During the last year a building for manual training has been erected at this institution. We would recommend that manual training be made a part of the educational plan for the children under 14, and that a head teacher or superintendent for the school be appointed, who shall under the superintendent of the Home have sole charge and direction of all the educational work of the institution. It is particularly necessary that this school should be brought to the highest possible efficiency. There are inherent difficulties in educating large numbers of children thus gathered together and deprived of that intimate association with their parents and elders which forms so large a part of natural education. These children too are cut off from the education and stimulus of the street which is by no means all bad. These difficulties are not realized at first, but they exist and can only be met by great effort to make the school practical, interesting and stimulating. The Board trusts that it may be made a manual training school of the best type and a model to the State.

In pursuance of the same principle which has influenced the Board in recommending the placing out of children in homes, the Board would advise that these children be placed in homes on reaching the age of 14 years or before if possible, and that when necessary to their proper schooling or training until they reach 16 a sum shall be paid for their living and teaching, not exceeding the cost of maintenance in the institution, but that the period of their retention in the Home be limited to the present age 14 years.

COOK COUNTY.

The charitable work demanded of Cook County is so vast as compared with that demanded in any other county of the State that here the county almshouse has been differentiated into a county hospital with an average of 1,000 beds, a detention hospital for the insane, an infirmary and an insane asylum.

Following is the report of Cook County Hospital for 1895:

Patients on hand Jan. 1, 1895		794
Number of patients admitted to Hospital		14,861
Total number cared for		15,655
Number of patients discharged	13,629	
Number of patients	1,194	14,823
Total number remaining in Hospital Jan. 1, 1896		832
Average number of beds, 1,000.		

MATERNITY WARD.

Births	395
Deaths (infants, includes still-born)	64

HOSPITAL.

As regards the Cook County Hospital the Board renews its former suggestion that medical students be allowed upon the wards. During the last year there have been repeated assurances of gross misconduct and neglect of patients upon the part of certain doctors, and there is at all times a laxity of attendance upon the part of staff physicians, from which the patients suffer, being left as they are to the care of internes. This great free hospital contains a destitute population as evidenced by their presence here. Their sickness and helplessness certainly compel sympathy, and we have no doubt that it was with a view to protection of the patients as well as to put an end to a quarrel among the schools that the old practice of bedside teaching was discontinued in this Hospital.

Free hospitals are found in all great cities of the civilized world and they are everywhere open to bedside teaching, and in consequence enjoy the services of the most distinguished physicians and teachers of medicine in their respective cities. It seems plain that the theory that the free patient in return for the benefit received in the hospital shall give opportunity to students of medicine and thus repay society, results in the patients obtaining the services of the most eminent men in the medical profession. While the other plan now followed by Cook County leaves the wards closed to students and therefore deserted by their teachers, and the patients abandoned to the mercy of untrained fledglings in the medical profession, or to physicians whose appointment is due to some other cause than fitness. In situation, equipment, buildings and nursing force this hospital is all that can be reasonably demanded.

In the opinion of this Board the usefulness and efficiency of the Cook County Hospital would be greatly enhanced if it were superintended by a competent medical man. Medical skill is required in the housing, feeding and clothing of patients just as much as in the prescribing of drugs. Private pay hospitals are in their every detail managed by medical men and public opinion demands not less in the care of the poor whom the public assume to treat when ill. It is not a fair charge to make against the profession of medicine whose members embrace those well known to be the most humane and gentle of men, that the admission of students upon wards of a hospital would result in unkindness or maltreatment of patients, for their lives are devoted not only to relieving and healing the ills of the race but to the prevention of disease as well.

This Board unqualifiedly believes that the admission of students to the wards in small groups in company with the attending physician or surgeon would be of benefit to the patients and submit that the medical man is the best judge of how and when such visits should be made.

We renew our suggestion that some provision for convalescents other than Dunning be afforded. It is our belief that many a self-respecting man or woman is turned into a pauper by being sent from the County Hospital to Dunning for convalescence.

INFIRMARY AND INSANE ASYLUM.

The population of the Infirmary and Insane Asylum is fully discussed in the Appendix. The insane are overcrowded and the Infirmary inmates on the men's wards as well. In the opinion of the Board the Infirmary population should be entirely removed from Dunning.

It is too near the city limits for an almshouse. The line of city saloons across the street from the grounds are a source of constant disorder and mischief and form a strong argument for the withdrawal of the Infirmary, since there is no power to compel the withdrawal of the saloon.

The Board would urge that the records of the Infirmary, be more carefully kept, especially that the very large duplication be noted. This is further discussed in Appendix II.

Whether the insane of Cook County are cared for by the State or by the county, they should not be removed farther than their present location from their friends and relatives, who can now reach them at a trifling cost. The present location is wholesome and adequate for an insane hospital if the entire plant could be used and the buildings remodeled, but it is not enough for Infirmary and insane asylum too.

At present the Cook County Insane Asylum receives many curable and recent cases owing to the crowded state of the Eastern and Northern hospitals. Its vital lack in an administrative sense is a competent medical superintendent to have sole responsibility for the care of the patients.

A reorganization of the patients themselves under medical supervision should be made so as to keep more of them employed in various ways. The idleness and dulness of these wards is oppressive to the observer even in contrast with other similar institutions.

DETENTION HOSPITAL.

Patients are brought to this hospital for security pending a legal inquiry as to their mental condition. They are often in a state of acute mania, a condition demanding medical care and good nursing. While the Board believe that the conduct of this hospital has somewhat improved, it can not be considered as adequate.

The detention hospital should be under practically the same nursing charge as in Cook County Hospital. It should be under the medical charge of physicians who are specialists in mental disease, and should be visited daily in turn by at least two such physicians. If this were done it would render natural and easy the change from jury trials to inquiries by commission in Cook County, and that, too, without consuming more time than the present plan. The County Judge has the right under the law to appoint as commissioners in lunacy two qualified physicians in regular and active practice, when no jury trial is demanded or appears to the judge to be necessary. By appointing as such commissioners doctors who should serve for a period of ninety days, more or less, visiting the hospital daily during their term, and thus seeing each patient repeatedly, a medical decision in each case could be secured which would be of real value, and if presented to the judge would certainly facilitate rather than retard the proper disposition of these cases. Such medical attendance combined with the nursing of a sick ward would doubtless result in the cure of some acute cases without recourse to a State Hospital.

SOCIETY PROCEEDINGS.

Chicago Pathological Society.

Regular meeting was held December 14, 1896.

Dr. ARTHUR R. EDWARDS, Vice-President, in the Chair.

Dr. HENRY F. LEWIS read a paper entitled "Iniencephalus, with demonstrations." (See page 388.)

Dr. EDWIN KLEBS.—In reference to the very interesting subject discussed by Dr. Lewis I have only a few remarks to make, as I have not specially studied the subject.

1. I would say that I do not like the name of iniencephalus, as the foremost alteration is in the spine, showing the highest degree of spina bifida or rachiochysis. As the whole fetus with well-formed head and extremities shows a high degree of retardation of growth, it may deserve the name of a dwarf-growth. The head is retracted by the shortness of the spine; the upper and lower extremities approach one another. In comparison with the well known cases of microcephalia and micromelia (diminished growth of head and limbs) one would give to this monster the name of microrhachia.

2. As to the development of the spina bifida, I have shown in a case of dwarf fetus, no longer than 16 m. in the fourth month of development, that the alteration begins at the time of the formation of the chorda dorsalis, probably by adhesion of the flat embryo to the egg membranes, hindering the occlusion of the opened spinal canal and the development of the spinal marrow.

3. In this case it seems to be remarkable that notwithstanding the general arrest of development the formation of head and limbs shows normal forms. As the intervertebral ganglia in such cases are developed the normal formation of the extremities is regular. Other cases of rachiochysis and amelia can not depend upon the destruction of the spinal marrow. It seems that in micromelia the development of the limbs is retarded by mechanical obstacles, probably the shortness of the amnion. In this case the amnion was normally developed, and no obstacle formed to prevent the development of the limbs. That the place of the first adhesion of the fetus to the egg membrane can not be detected is explained by the high power of regeneration in the egg and fetus.

4. It may be remarked that the abnormal conditions in this case of iniencephalus, as in so many other cases of malformation, are caused by the presence of another well-developed fetus.

EXHIBITION OF SPECIMENS.

Dr. E. R. LE COUNT showed a *cyst of the urachus*. The patient from whom this specimen was obtained was admitted to the Cook County Hospital Feb. 27, 1895. He was a man 52 years of age, white and single. He was admitted for an illness which began four weeks previously with frequent micturition and pain in the region of the kidneys. Examination revealed an enlarged prostate. Symptoms of cystitis with retention of urine, hydronephrosis and uremia prevailed, and death occurred April 9.

Bladder and cyst of the urachus, greatly reduced in size.

Autopsy abstract: The bladder is large with markedly thickened walls. Each lateral lobe of the prostate is the size of an English walnut. At the summit of the bladder and separated from the bladder cavity by a thin membrane, is a cyst the size of an average orange, which contains a thick, turbid, viscid, brownish fluid. The lining of this cyst presents an irregular surface, but there are no distinct rugæ. The irregularities of the cyst lining are present upon the upper surface of the intervening septum between it and the bladder cavity, and the rugæ of the bladder are continued upon its inferior surface. The ureters are dilated, as are also the pelves of both kidneys. Careful dissection failed to reveal further urachus remains in the abdominal wall or about the navel. Microscopic examination of the septum between cyst and bladder cavities disclosed the fact that the muscular coats of the bladder wall were not continued into the septum. This fact, taken in conjunction with the position of the cyst and the fact that the peritoneum of the abdominal wall was reflected upon the back of the cyst and from thence upon the back of the bladder, leaves no doubt

but that the cyst represents the unobliterated and dilated lower end of the urachus.

Dr. F. E. WALLACE presented a case of *suppurative pancreatitis.*

Mrs. F., aged 26 years, Irish nationality; mother of two children. She was admitted to St. Elizabeth Hospital Oct. 26, 1896. Family history negative.

In the past two years she has had four or five attacks of pain in the region of the gall bladder with slight icterus. She has also had one miscarriage. Her present illness dates back five weeks, when she had attacks of pain in the epigastric region with nausea, vomiting and thirst. These symptoms persisted for three weeks and then abated under treatment. Five days ago vomiting began and persisted up to the day of her entrance into the hospital. She was admitted for an operation, a probable diagnosis of gallstones having been made.

On admission her condition was as follows: Temperature 100.4 degrees, pulse 114, strong and wiry, hurried respirations; face highly flushed; nausea and vomiting; pain in epigastric region; great thirst; bowels confined, and passing small quantities of urine.

Urinalysis showed one-fifth by bulk of albumin and large quantities of biliary coloring matter. The operation was postponed. Sp. gr. 1,015 and an acid reaction.

Alcohol sweats were given and following the use of this treatment the albumin diminished one-half.

Oct. 27—Thirty-two ounces of urine passed in the previous twenty-four hours. The symptoms of nausea, vomiting and thirst continue.

Oct. 28—Patient passed but 16 ounces of urine in the last twenty-four hours.

Oct. 29—Heart seems growing weaker and is passing but little urine; the feces and urine being voided at the same time. During the last three days the temperature has been one to three degrees above normal and the pulse above 100.

In the evening of October 29 she passed into a deep coma and died at 11 P. M., the treatment having been symptomatic.

The autopsy was made by Dr. E. R. LeCount. A synopsis of the postmortem findings follows:

Body and tail of pancreas consisted of shreds of necrotic tissue extending across and lying free in a cavity formed by the stomach, the retro-peritoneal and perirenal adipose tissue, the transverse mesentery, the duodenum and the tissue of the lesser omental cavity, as well as some loops of the small intestines and colon. The walls of this cavity were necrotic, dark gray and slaty in color. The cavity contained fecal matter from perforations of the colon and stomach. The head of the pancreas was the least involved.

There were many small gallstones and the gall bladder was contracted and small from connective tissue bands in the walls.

Disseminated in the omentum, mesentery and abdominal fatty tissue generally were small grayish areas such as are seen in fat necrosis. Acute parenchymatous nephritis was present. The spleen was small. The heart and lungs appeared normal.

Dr. ARTHUR R. EDWARDS presented:

1. *Urethral stricture with extravasation of urine.*

These specimens are from a case of urethral stricture in which the patient had been treated on a previous occasion for stricture and retention of urine (as a sequence of the stricture) successfully by dilatation of the urethra with sounds. The patient left the hospital after this dilatation had been effected. The history of the interval between his discharge and return to the hospital is somewhat meager, except that he stated he suffered again from retention of urine and was unsuccessfully treated by sounds by a physician. The sounds were passed many times, consisted of various calibers and shapes, and the patient had had a considerable quantity of blood escape from the urethra, but the passage into the bladder was not reached. The patient entered the hospital in a delirious condition, and the true state of affairs was not appreciated, as the history was obtained only after his death. He had been in the hospital some little time with retention of urine when periurethral abscess pointing in the perineum, which was incised and which shows in the specimen. There was afterward infiltration of urine, not so much into the perineum, the scrotum and the soft tissues of the external genitalia as upward into the abdominal muscles, especially into the recti.

At the necropsy the findings in the rest of the body were practically negative, except there were in the lungs, which are unfortunately not here, one or two small metastatic abscesses in the right lower lobe. In some of the larger veins outside and back of the bladder there was a suppurative thrombo-phlebitic process. The specimen itself distinctly shows the stricture, and proximal dilatation of the urethra, the stricture being about two inches from the external meatus. Further up is the point where the incision had been made from the back of the urethral abscess into the urethra itself. Just above the point of division of the urethra where the tissues are disorganized we found a peri-urethral abscess. The cut which you notice about the neck of the bladder was made at the opposite direction to see if there was a deeper process in the prostate. There was very intense cystitis, para- and peri-cystitis. The recti muscles on each side of the pubes were greatly disintegrated, and the foul decomposition had extended to a lesser degree over quite a distance in the abdominal walls.

The pathologic process did not extend to the ureters or to the kidney.

2. *Carcinoma of the cervix uteri.*

The second specimen is an ordinary carcinoma of the cervix uteri in which a history was given of the disease lasting for about twelve months before the patient entered the hospital. She was in the hospital only a comparatively short time before she died. Three or four months prior to her admission there was a very offensive discharge, which was present when the patient was admitted.

An examination showed the pelvis to be extensively infiltrated with the neoplastic masses. The abdomen was somewhat rigid and contained palpable masses.

The subphrenic organs are shown here, although they are of little interest beyond the invasion of the liver by the tumor and, what is more interesting, the invasion of the diaphragm, which shows distinctly. In the hilus of each lung the secondary deposits were lacking; yet on the upper surface of the diaphram the lungs were adherent to it and the subpleural lymphatics are involved.

PRACTICAL NOTES.

Argentamin in Ophthalmics.—Hoor has recommended argentamin as a substitute for silver nitrate in eye affections where the latter is indicated. Argentamin is chemically ethylenediamin-silver-phosphate. Unlike silver nitrate, which when crystallin is acid in reaction, and when fused neutral in reaction. Argentamin is alkalin, and this accounts for the fact that its application caused only slight and transient local reaction, a point much in its favor. It never gives rise to a deposit on the abraded or ulcerated cornea, which nitrate of silver sometimes does, nor to staining of the conjunctiva, nor to the disagreeable metallic taste associated with the use of the latter. It may be used in 3 or 5 per cent. watery solution, once or twice a day, or oftener if required. It seems to have all the advantages and none of the disadvantages of silver nitrate.—*British Medical Journal*, October 17.

Successful Treatment of Whooping Cough with Inhalations of Mentholized Formic Aldehyde.—According to the experience of P. Rosenberg, the inhalation of the vapors disengaged by a solu-

tion of 60 per cent. formic aldehyde in methyl alcohol to which menthol has been added, produce a peculiar effect on the mucous membrane of the respiratory passages, which can be utilized in cases of phthisis and especially of whooping cough. He has demonstrated that inhalation commenced with the first appearance of whooping cough, have succeeded in arresting it in the course of a few days. Commenced later, they are equally useful in diminishing the number of the paroxysms and abbreviating considerably the duration of the disease. The windows and doors of the room are closed air tight and 5 to 10 c.c. of the methyl solution of formol, with the menthol, are evaporated in a saucer by means of a "very feeble source of heat."—*Bulletin de la Soc. de Pharm. de Bordeaux*, December.

Salol in the Treatment of Non-Diphtheria Throat Affections of Children.—In the *Journal des Practiciens* for December 5, M. de la Carrière remarks that the internal employment of salol in angina has given excellent results, and that he has prescribed it in cases of amygdalitis, acute angina, and non-diphtheritic cases, whatever might be their cause. It is a general antiseptic and analgesic, with an elective action on the pharynx. It quiets the pain and the dysphagia almost immediately, it brings about a rapid relaxation in the physical symptoms, it prevents the formation of abscesses, and it always shortens the duration of the disease, especially if administered in the beginning. The daily amount for an adult is sixty grains. For children the adjustment of the dose is easy, as salol is always well borne, for trouble with the kidneys, which is the only contraindication, is exceptional in them. The amounts to be taken daily are as follows: For children a year old, eight grains; for children two years old, fifteen grains; for children three years old, twenty-three grains; for children four years old, thirty grains; and for children eight years old, forty-five grains. This amount is sufficient until the age of fifteen, when it may be increased to sixty grains without inconvenience, if necessary.

With regard to the mode of administration, de la Carrière recommends the following formula:

R.	Salol	30 grains
	Sweet almond oil	60 grains
	Syrup	450 grains
	Distilled water	2.5 ounces.

Peppermint, orange-flower water, vanilla, or cherry-laurel water may be added to make it aromatic.

This quantity is sufficient for three doses during the day. Salol may be given at mealtime, as it does not disturb the digestion. The employment of this drug should be suspended if the urine appears of a dark color.

Treatment of Tuberculous Epididymitis.—Dr. W. L. Rodman, in the *American Practitioner and News*, January 9, states that his experience leads him to say that in the vast majority of cases the disease is primarily in the epididymis. [This is also the view held by Monod and Terillon.—Ed.] He has examined many specimens removed by himself and others and has never yet seen a case where it was not demonstrated that the disease began in the epididymis. He has seen many cases in which the disease is limited to the epididymis and others in which the body of the testicle became involved later. A patient may have considerable disease of the epididymis for years without any other part of the genito-urinary tract becoming involved. If the disease is bilateral more conservatism should be observed than if it is unilateral. If it is clearly unilateral it is best to sacrifice the testicle. "My belief is that a man is about as well off with one testicle as with two. A patient whom I exhibited to this society about two years ago, after a unilateral castration, has since become the father of a child and tells me there is no difference in his condition sexually. In view of the fact that I have been in the habit of practicing partial operation in benign tumors I can understand how this same plan of treatment can be pursued in tubercular disease of the testicle. But it must be remembered that here we are dealing with something in the nature of a malignant disease and we must be more radical. I would not castrate if the prostate was involved also. How many cases of tubercular disease of the epididymis of the testicle get well? I can not recall a single case where I have practiced castration that has come back to me with involvement of other parts of the genito-urinary tract. There may have been recurrences, but they have not come to me; as such cases follow one, I take it none have occurred."

Dr. Howard Kelly's Operation in Ectopic Pregnancy.—In the Johns Hopkins Hospital *Bulletin* for December, Dr. Kelly has a paper on the treatment of extra-uterine pregnancy by vaginal puncture. He has now the records of ten cases treated with good results in this way since 1882. There has been no mortality, and relatively little suppuration. He describes the operation as follows: I do not consider it necessary any more to make the abdominal incision. After an accurate diagnosis of the case, outlining the sac and its relations by abdominal and rectal palpation, and after careful vaginal palpation to determine the proximity of the sac to the upper vaginal wall, a point is located behind the cervix in the vaginal fornix close to the sac, and a pair of sharp scissors is plunged upward in the direction of the axis of the pelvis. The scissors are then opened and some of the fluid blood usually trickles out at once. Larger scissors are then introduced, if need be, and the opening widened by withdrawing them with blades open. It is important to have a large opening, both for the purpose of getting two fingers in to clean out the sac and for good drainage afterward. The torn edges of the wound never bleed excessively. The sac must be delicately cleaned out, and everything brought away down to the shell of the sac and surrounding adhesions. In one of these cases I brought out a well-defined Fallopian tube cast, due to hemorrhage in the tube. The cleaning out is followed by irrigation, after which the sac is plugged with gauze, which is left in for several days, and sometimes longer, and then the wound is washed out daily until it closes. I know of no instances of more than moderate suppuration following this plan of treatment.

Eclampsia Caused by Leucomains.—By means of venous fistulas on animals (Eck's method), Massen has established the extreme importance of the functions of the liver in the processes of oxidization occurring in the animal organism, and the toxic action of the amin-carbonic acid generated by the incomplete oxidation of the nitrogenized substances. This acid produces in animals an intoxication resembling in every respect the picture of eclampsia. He has also studied with the microscope the lesions of the viscera in eclampsia. The parenchyma of the liver shows profound alterations, and the other organs a general and severe intoxication. By a series of parallel researches he has become convinced that eclampsia is caused on the one hand by a disturbance of the processes of oxidation in the pregnant woman, and on the other, by a subsequent intoxication from the products of the incomplete oxidation, among which amin-carbonic acid plays the principal role, although analysis of the urine in eclampsia does not disclose an excessive amount of this acid. The urine, however, always contains a large quantity of leucomains; before an attack of eclampsia the quantity of leucomains in the urine is always two and one half to three times the normal, rapidly diminishing after the attack. He announces therefore that eclampsia is in fact a leucomainemia. Leucomains are found normally in much greater abundance in the pregnant woman than in the non-pregnant, but as they circulate in the organism they do not produce any disturbance unless the balance of the nervous system is destroyed by extreme pain or some other excitation of the nervous system.—*Presse Méd.* from *Cbl. f. Gyn.*, 1896,

Alterations in the Cremasteric and Bulbo-cavernosus Reflexes in Neurasthenia.—It is unnecessary to dwell upon the value of a sign that would enable the diagnosis of neurasthenia to be made with certainty, without depending upon the statements of the patient, whose reliability is frequently questionable. Critzman calls attention to the absence of certain reflexes which he has invariably found wanting in well defined cases of neurasthenia in the male, and suggests that their absence may prove an important aid in the diagnosis. The cremasteric reflex is entirely absent and the other is profoundly modified. This is contrary to the usual ideas in regard to neurasthenia, according to which the reflexes are exaggerated. There are two methods of exciting the cremasteric reflex, one when the patient is in the decubitus dorsal and the other when he is standing. The latter is the most reliable. The patient should stand erect, facing the physician, and raise and hold his shirt himself. The slight effort this requires draws his attention away from the physician's maneuvers. It is best not to inform him of what is sought, but keep the conversation on indifferent subjects. The skin of the upper inner part of the thigh is then irritated with the nail of the right forefinger or the wire brush of the electric apparatus, *always from above downward*. As this is done the testicle on this side is at once drawn up toward the external inguinal ring. This always occurs in normal health and in children, Critzman states, and with equal energy on both sides, perhaps a trifle stronger on the left. It can also be excited by strong pressure with the thumb on a level with the ring of the third adductor or on a level with the internal condyle of the femur at the point where the internal saphenous nerve is in the groove separating the sartorius from the vastus internus. It fails to present itself in cases of varicocele of the spermatic cord, with relaxation of the scrotum, and in bilateral orchitis, in ataxia and hemiplegia, but it persists otherwise, even in cases of impotence not due to any organic lesion. In his nine cases in which it was conspicuously absent, the general health was good; the patients looked flourishing; there was no varicocele to be discovered nor relaxation of the scrotum, and they had never had double epididymitis. But they were all subject to hereditary neurasthenia, which manifested itself in the most various ways, as he describes at length in the *Presse Méd.* of December 12. He invites discussion of the subject and further confirmation of his assumption of the connection between neurasthenia and the absence of the cremasteric reflex. The bulbo-cavernosus reflex is produced by placing the left forefinger on the bulb of the urethra, while with the right hand the dorsal surface of the gland is irritated with the edge of a piece of paper, or by lightly pinching the mucosa, when the left finger perceives a more or less energetic shock due to the contraction of the ischium and the bulbo-cavernosus. This reflex does not show such decided modification as the cremasteric, but in the neurasthenic subjects examined it was either absent or very weak, or very slow in appearing.

Improved Suppositories.—The ideal suppository can not be made of glycerin, as this irritates the tissues more or less, while it is impossible to sterilize it satisfactorily. It often contains also products prejudical to the tissues. Cocoa butter also fails, as it seems to be impossible to blend the medicaments with it in regular proportions throughout, some containing more than the required amount and some less, while it may be entirely absent from parts of the suppository. A new material has been found admirably adapted for the purpose, agar, used to such an extent in bacteriologic investigations. One part of the finely pulverized agar, heated in the water bath with 29 parts water for a few minutes, produces a gelatinous mass that pours out easily and hardens soon into a smooth, slippery, tenacious, resistant substance, which dissolves readily when used as a suppository. As it has an acid reaction, it is neutralized by the addition of 0.1 gram natrium bicarbonicum to 10 grams of pulverized agar. The medicine (which must be soluble in water) for the desired number of suppositories is put in a bottle with 1 part neutral pulverized agar and 29 parts by weight of water and the whole energetically shaken. The cork is then tied on tight and the bottle placed for five to ten minutes in boiling water. Paraffin paper has been found the best material for the molds. Small pieces of the paper, 4 cm. square, are rolled up in a cornucopia, the points turned up and the cornucopias set up in a frame made of light thin wood with two or three concentric plates, 5 to 9 centimeters in diameter, in which holes have been bored to receive the molds (about 3 mm.). The frame is placed in the scales and the hot agar mixture is poured into the molds. The suppositories are left in the paper molds until used. Some medicines that are not soluble must be rubbed into the pulverized agar first and then finished as above. Others, like tannin, are prepared without heat (tannin 1 part, mixed with pulverized agar 2 parts and kneaded into the suppository form with 7 parts water). Medicinal pencils and vaginal balls are made in the same way. Ten per cent. iodoform bougies are made by mixing 1 gram neutralized agar with 3 grams iodoform in a bottle and adding 29 parts water as directed above, pouring the hot mixture into suitably prepared paper mold in corresponding holes in the frame. Balls are made by pounding parchment or wax paper with a suitable stamp into round holes in a block of wood, and the hot mass is then poured into the paper cups thus made. (L. Lewin and Eschbaum, in the *Deutsche med. Woch.* of January 7.) Suppositories for the ears could also be made in the same way.

A Case of Cretinism Treated by Thyroid Extract.—Mr. Rushton Parker reports in the *British Medical Journal* the case of M. K., aged 8 years. This child's mother had congenital defects of cleft palate and hare-lip and underwent severe shock a short time prior to the birth of the daughter. In no other respect was there anything noteworthy in the family history—no goitre, no consanguinity, and the four grandparents living to a good age. During infancy it was noticed that she differed from other children in being always very still and quiet, in sleeping inordinately, and in never crying. Up to 6½ years of age she remained very stunted in growth, propped up all day on a chair, being unable to sit up or stand, usually very stolid, sleeping indefinitely, breathing very noisily and unable to recognize people or to speak. She was very cold, liking to be near the fire. Her actions were very slow, so that she would take a full minute to raise her arm when asked to shake hands. Her face was swollen, so that her eyes were often scarcely visible; her lips were swollen and livid; her tongue was swollen and livid and commonly protruding; the teeth were black and stumpy; the mouth seemed always full of phlegm; the bridge of the nose was sunken and the tip flat; the neck was thick, the thyroid gland quite imperceptible; there were soft swellings above the collar bones and similar masses outside the nipples; the limbs were short and stumpy, the belly was swollen and an umbilical hernia protruded to the size of a walnut. The hair of the head was not noticeably scanty or coarse. A five-grain thyroid tabloid was given every week-day in one dose for the succeeding six months, during which time the swelling gradually vanished from the tongue, then from the face, then from the body and limbs, so that in a few months her mother thought she felt quite a stone lighter, although she had grown some inches in height. On November 28, after twelve months' treatment, she had very much the appearance of any healthy child from 2 to 3 years of age, but being unable to talk, with the exception of saying a few simple words, and having several healthy permanent incisors, most of the old, black, stumpy teeth having vanished. The thyroid treatment caused no unpleasant symptoms whatever, so that it was never discontinued or the dose reduced; but the impression throughout has been that the child was taking just about as much as she could tolerate, being occasionally on the verge of diarrhea and feverishness.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY.

SUBSCRIPTION PRICE, INCLUDING POSTAGE:
Per Annum, in Advance $5.00
Single Copies . . . . . 10 Cents.
Subscriptions may begin at any time and be sent to
THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 61 Market Street (Occidental Buildings), Chicago, Illinois.

MEMBERSHIP IN THE AMERICAN MEDICAL ASSOCIATION.
This is obtainable, at any time, by a member of any State or local Medical Society which is entitled to send delegates to the Association. All that is necessary is for the applicant to write to the Treasurer of the Association, Dr. Henry P. Newman, Venetian Building, Chicago, Ill., sending him a certificate or statement that the applicant is in good standing in his own Society, signed by the President and Secretary of said Society. Attendance as a delegate at an annual meeting of the Association is not necessary to obtain membership.

On receipt of the subscription the weekly JOURNAL of the Association will be forwarded regularly.

Gentlemen already members of the Association should send their annual subscription to the Treasurer, or direct to the JOURNAL office.

All communications and manuscript of whatever character, intended for publication in the JOURNAL, should be addressed to the *Editor*, and all communications relative to the business of the JOURNAL, proof sheets returned, or in regard to subscriptions, should be addressed to THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, 61 Market Street (Occidental Buildings), Chicago.

Original communications are only received with the understanding that they are exclusively contributed to this JOURNAL.

INFORMATION WANTED.
It would greatly facilitate the prompt delivery of the JOURNAL to those members of the ASSOCIATION living in large cities, if they would kindly furnish this office with their street address in those cases where it is omitted from the wrapper of their JOURNAL, as we have been notified by the postmasters of the larger cities that second-class mail matter not having street address, would be placed in the general delivery to await call.

SATURDAY, FEBRUARY 27, 1897.

COMPARATIVE PATHOLOGY.

The fact that Chairs of Comparative Pathology have been established in Harvard University and in the University of Buffalo shows that more interest is being taken in this country in this subject, which is bound to throw much light on human pathology. It is the purpose of this article to point out some of the analogies between pathologic processes in man and those in the lower animals.

We find some affections occur only in animals, a small number are peculiar to man and some are rare in man though common in animals. "No matter," says QUATREFAGES, "which kingdom (animal or vegetal) they belong to, races have their pathologic characteristics as well as their external or anatomic ones; man is not exempt." Domestication and captivity are potent factors in the determination of disease processes. Thus wild animals are rarely attacked by the infections or intoxications, yet domesticated or wild animals in captivity are subject to nearly the same pathogenic factors as man. In the case of wild animals contracted space for exercise and inappropriate diet are responsible, in the case of the domesticated animals insufficient or inappropriated food and cramped quarters. For instance in the Faroe and Shetland islands the cattle and ponies are given dried stock fish when the supply of hay runs short. It is interesting to note that the more cultivated or "finer" the breed of domestic animals, the more liable it is to disease.

Beginning with the intoxications, animals in the vicinity of chemical works may be poisoned by arsenic, lead or zinc, either from grazing on leaves or grass on which these fumes have settled, from drinking out of water courses contaminated by the discharges from the works, or possibly by inhaling the fumes themselves. The ox resists mercury less than the dog, and this animal less than the horse. The horse and dog on the contrary are more easily intoxicated by lead than the ox. Plumbism in the horse is attended by many of the symptoms noticed in man—gingivitis, nephritis, paralysis (CADIOT: "Traité de Pathogénie Générale," I, p. 103). On the other hand many animals are capable of resisting substances poisonous to man. Thus the herbivora may eat belladonna for some time without producing any evil effects, and rabbits may eat it until their flesh is so tainted as to be actually dangerous to man, yet show no signs of poisoning. So too, goats frequently eat stramonium, and KOBERT has shown that the hedgehog can take large doses of cyclamin, which is intensely toxic to man, without any untoward results.

As regards infections and parasites we find that the bacillus coli communis is found in the intestinal canal of nearly all mammals, and FLINT (JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, Feb. 29, 1896) has shown that it occurs in some of the lower vertebrates, also, snake, frog, turtle. It frequently causes fatal diarrhea in rabbits when this microbe alone is found in the stools. Avian diphtheria seems to differ from the human variety by the absence of the KLEBS-LOEFFLER bacillus. Typhoid does not seem capable of transmission, though the bubonic plague is, and nearly all the accounts speak of the immense mortality among rats. Of bacterial diseases capable of transmission from animals to man or *vice versa* we find anthrax, hydrophobia, glanders and tuberculosis. While the first three of these are decreasing the last is increasing among men. Animals vary in their susceptibility to the tubercle bacillus; thus while it is frequent in the ox, and especially common in grain-eating birds, it is not frequent in the horse and pig, but somewhat more so in the sheep and goat. As regards monkeys it is now believed that its supposed frequency has been somewhat exaggerated. It has even been found in snakes on two occasions. This seems incredible, as these animals have their blood lower than the temperature necessary for the growth of the bacillus tuberculosis. BLAND SUTTON, who reports one of the cases, attributes it to the increased heat during the breeding season while the eggs are being incubated.

DANILEWSKY, some four years after LAVERAN'S discovery of the plasmodium, found similar organisms in the blood of birds, and GRASSI and FELETTI confirmed his observations, though among the domesticated species they were only able to find them in pigeon's blood. Recent researches of DANILEWSKY led him to

conclude that malarial infection both in animals and man is produced by a parasite of the blood, that it can be discovered in blood drawn from the vessels, and that these cytozoa give rise to the formation of melanin, which may be detected in the spleen, liver, bone marrow, etc. With regard to the larger parasites, whose name is legion, space forbids any detailed synopsis. Suffice it to say that tapeworms, round worms, flukes and hematozoa are all found in lower animals. No human parasite seems to inhabit animals, and but one of the animal parasites, tænia cucumerina, is at all frequent in man.

Malformations and monstrosities are also common; some varieties, as diprosopus, are more frequent in animals. According to ST. HILAIRE at least three-quarters of the known monstrosities belong to mammals, the other quarter to birds. Teratomata are common in fish, snakes and batrachians; even tapeworms have two heads, and various other monstrosities. VIRCHOW mentions an interesting malformation met with occasionally in Polish hens, which have large topknots. The roof of the skull under this topknot is sometimes wanting, and a sort of meningocele is formed. As BLAND SUTTON points out, we have a condition here somewhat similar to spina bifida occulta, the feathery topknot corresponding to the tuft of hair found overlying the spina bifida.

Of degenerations it will be sufficient to mention the mucous, which may be called a physiologic process in fish, producing the slime covering their bodies more or less. In the group of myxinoids this is seen in an extreme degree; a species of bdellostoma of our Pacific coast with a slender body about twenty inches long, if placed in a pail of water, will quickly convert it into slime from the mucous glands on the sides of the body. Attention may also be directed to the fatty infiltration of the liver of "Strasburg" geese.

Nor are instances of hypertrophy and atrophy wanting. Good examples of the former may be found in the foot-pads of animals kept in dirty cages, or the hoofs of cows and horses in damp pastures or dirty stables, or again in the warts on the noses of animals grazing in stubble fields. A good example of the process of atrophy may be seen in the right ovary and oviduct of female birds; the chick has two at first, but the right atrophies.

The formation of tumors is frequently observed. According to CADIOT (op. cit.), the dog is most often affected with neoplasms, then the horse, cat, ox, pig; they are somewhat frequent in birds, but in this group they exhibit special histologic characteristics. As in man, benign tumors are found in the young animal, sarcomas in the adult, carcinomas in the aged. Lipomas and myomas are rare, osteomata somewhat common, especially in fish. Odontomes are very common; typical specimens are often met with in gnawing animals and in elephants. Sarcomas are very common also and are met with throughout the mammals, also in fish and snakes. The melanotic variety is frequent, and many persons have probably noticed them in gray or white horses, where they form large masses around the anus. Cancer seems to be almost unknown in wild animals, but it is not infrequent in the domesticated species. FIELD has reported two cases in cats (JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, Dec. 29, 1894.)

We now come to the general diseases. During the smallpox epidemic of 1894 in Chicago Dr. WARREN noticed the transmission of this disease to the horse and cat, including the formation of papules, vesicles and pustules (Report Dept. Health, 1894). A few weeks ago an epidemic of spinal meningitis was reported among the horses at Phoenixville, Pa., which was attended with a large mortality (*Medical Record*, Jan. 30, 1897). Rickets is common in dogs and carnivora in menageries from eating flesh with little or no bone in it. Gout is met with in birds and sometimes in reptiles. Osteo-arthritis is widely distributed. It seems to be the most frequent bone disease in animals. Rheumatism is met with in horses; animals imported into Japan from China and Corea are said by the *Sei I Kwai* to be invariably attacked and crippled by this disease. HARRISON narrates a case of chronic rheumatism in a giraffe.

Concerning special diseases those of the circulatory apparatus present the same lesions as in man. Race horses are often subject to cardiac hypertrophy and it is not rare to read of them dropping dead during races. A case of septic endocarditis, with vegetations at all the orifices, is reported in a calf five weeks old (Trans. Path. Soc., London, 1893). Pericarditis, with or without obliteration, is found even in birds, and HARRISON mentions purulent pericarditis in a young lion.

In the Bristol *Med. Chir. Journal* for December 1894 is an extremely interesting paper by Dr. A. J. HARRISON, in which he gives details of numerous necropsies on the wild animals dying in the Bristol zoologic gardens. Speaking of pulmonary diseases he states that monkeys are very susceptible to chest affections, and that he was struck by the very small ratio of lung tissue. "The lungs of monkeys seem to correspond very much with what we see about their antics, a succession of little movements, quick and often; a leap; a scramble, then a rest; a period of quick breathing and then a pause." This author also states that the large cats are very prone to inflammation of the lungs, and almost every postmortem examination shows evidence of recent or remote disease. Pneumonia in the domesticated animals seems to be of two varieties, one of which is contagious and is due to a microörganism isolated by SCHUETZ.

Lesions of the intestinal tract are numerous and

varied. Intussusceptions are common in dogs. HARRISON mentions a case of stricture of the colon and invagination in a brown bear. Hernia may be considered here; this is somewhat common in monkeys, sheep, horses and dogs. As BLAND SUTTON points out, it seems strange that it is not commoner in animals, for the funicular process remains patent in many of them.

Among diseases of the genito-urinary system may be mentioned nephritis, common in dogs, and paroxysmal hemaglobinuria in horses. Rupture of the uterus and difficult labor are also met with in the inhabitants of menageries. Many of the cases are undoubtedly due to contracted pelvis following rickets. Even venereal diseases are found; horses in France are sometimes affected with *dourine* or *mal de coit*, which is propagated by sexual intercourse and is very contagious. It seems to be but slightly analogous to syphilis. HARRISON mentions a case of rupture of an enlarged spleen in a lion following coitus, and LARCHER states that birds frequently have cerebral hemorrhage under such circumstances.

Nervous affections are more common in domestic animals and especially the "finer" bred dogs and race horses. Epilepsy in the goat was first noted by HIPPOCRATES; it is found besides in the horse, ox, pig, dog, cat, and in birds. Rabbits and roosters may be thrown into a cataleptic state by holding them steady for a few moments and drawing a line with chalk in front of their nose; frogs by holding them in the same position. Cretins are found among calves and dogs; the latter animals are also subject to dementia and chorea, and horses to acute mania. The Polish hens before alluded to, according to SUTTON, are given to performing circular movements and walking sidewise if excited. Birds bear anesthetics very badly. HARRISON mentions a cockatoo which died under chloroform, and the writer has seen two similar cases in a canary and parrot.

The lower animals are not without their vices; for example, many monkeys are addicted to masturbation, also dogs. It is also seen in stallions and bulls, and cock turkeys are said to make use of round stones for this purpose.

We learn from this array of facts that the same rules governing disease processes in man govern those in the lower animals also.

THE PROBLEM OF POPULATION.

The "depopulation" of France, as it has been called, has brought out within the last two or three years a considerable amount of social theorizing in the secular press, and this has to some extent invaded the current medical literature, which as a rule leaves economic questions alone. The subject of population, however, which is one of the most important social questions, has also its medical bearings, and can be treated more freely and fearlessly in some respects from a medical than from a purely economic standpoint. As regards France, the problem is a simple one; there is no question as to the fertility of the Gallic people, the evidence of the conditions in Canada is sufficient to prove their virility. In France the lowered birth rate is without much doubt the natural result of the saving and thrifty tendencies of the mass of the French people. If France had not the largest public debt in the world, and if this was not held by its own people in minute subdivisions, and further, if instead of the general heirship of all the children, some law of primogeniture or other expedient of inequality was the rule, it might again reach its old birth rate and the fears of its statesmen be allayed. The present difficulty in France is a direct result of economic conditions, their civilization has reached a static phase as regards population, and this is due in this special case to the general well-to-do condition of its people. They are, with of course lower ideals of comfort and standards of living, more generally than any other people, in the creditor class, and, as in that class in other lands, their birth rate decreases.

The prevalent militarism at the present time, the law of universal service, with its results in the way of delayed marriages, the extension of sterilizing venereal diseases, etc., though it undoubtedly has its part, can not be properly credited with the reduction of the death rate to any great extent, for it notoriously has no such effect in other European countries where the same conditions prevail in this regard. In Germany there is no marked decrease of births, and the population increases in spite of emigration; nor are any such complaints as those from France, heard from other quarters in Europe. Her ailment seems to be peculiar to herself and it is believed that the reasons given are the correct ones to account for it.

It is more than probable that the methods by which the result is brought about directly are not all such as can receive medical approval. Of course there is no such state of affairs as prevails in some Oriental countries where the courtesan is an honored member of society and infanticide is legitimized; but there must be a certain social demoralization that is more or less disastrous to society, altogether apart from the national enfeeblement in fighting material, if population is repressed by general practices of any kind that interfere with the order of nature. The present state of affairs in France, and it may be to some extent locally elsewhere, is certainly not a satisfactory one, and so far as it may be due to a moral dry-rot, and a spread of any kind or form of sexual vice, is most unsatisfactory.

The present tendency in civilization to the growth of great cities is bound to have a deleterious effect upon the population. It has been said that "Paris is France," and this may suggest a theory of French decadence.

The same causes however exist elsewhere and it is not impossible that the same evils may follow them.

The medical bearings of the subject are sufficiently obvious, and it is probable that the remedy, if there be one, will have to be administered largely by the aid of the medical profession in educating the public, encouraging correct notions upon certain matters of sexual morality, and generally pointing out the proper ways of conduct and living. The idea of marriage is, or should be, connected with that of the family and where they are separated one of the greatest stimuli to progress is done away with, and when a nation or a people, as a whole, shirks the struggle for existence in this particular, when fatherhood or motherhood is not looked forward to as the most desirable result of sexual union, then that people may expect sooner or later to yield to some more virile race in the struggle for national prominence or national life. It is unfortunate for France that economic conditions have so apparently hastened or temporarily produced this symptom of decadent or senile civilization.

PHTHISIS WARDS IN ITALIAN HOSPITALS SIX DECADES AGO.

The contagious nature of phthisis was an accepted doctrine with the Irish Royal College of Surgeons and the Scotch and continental schools with which it was in affiliation, nearly two centuries ago. The opinion as to the contagious nature of phthisis lasted longest in Italy and Spain. In Naples no one could conceal phthisis under penalty of three years at the galleys for common people and three years imprisonment and a fine of 300 ducats for the nobility. A physician who failed to report phthisis was liable to a fine of 300 ducats for the first offense and a banishment of ten years for the second. To aid a consumptive in the invasion of quarantine was punishable by fine and six months imprisonment. In Spain and Italy consumption was literally a "terror" to the community. In 1839 GEORGE SAND traveled in Spain with CHOPIN, the musician, then affected with the phthisis, to which he succumbed a decade later. On installing themselves at Majorca, SAND writes:

"At the end of a month poor CHOPIN had called in a physician, two physicians, and even a third, each a greater ass than his colleagues, if such a thing be possible. Each went away spreading the news throughout the island that the stranger was a consumptive in the very last stage. And what a commotion it caused! Phthisis is very rare here and is generally considered contagious. We were regarded literally as pestiferous, all the more as we did not attend mass. The proprietor of the little house that we had rented, brutally put us out of it and brought a process against us to force us to rehabilitate the reputation of his house contaminated by our presence. The indigenous magistracy pluck us as though we were chickens."

At Barcelona new trials and tribulations awaited them. On leaving the hotel, CHOPIN had to pay for the bed and bedding he had occupied, which were seized and burned by the police. In a letter (dated at Rome, Nov. 6, 1802) in which CHATEAUBRIAND announced to FONTANES the death of Madame DE BEAUMONT, the following passage occurs:

"For the balance I am very much embarrassed. I had hoped to save a couple of thousand crowns from the sale of my carriages, but by law dating back to the time of the Goths, phthisis is declared a contagious malady here in Rome, and as Madame DE BEAUMONT had ridden in them a few times (twice or three times only) nobody will purchase them."

The room in which poor KEATS died was treated in like fashion.

The Italian hospitals had isolation wards for phthisis. Of them, Dr. A. L. PIERSON wrote six decades ago (*Medical Magazine*, April, 1834).

"The patients with tubercular phthisis are separated from the rest by being placed in a separate ward, in a building having a small court-yard to separate it from the principal edifice. The belief in the contagiousness of the disease is as predominant at Naples as at Rome. In both cities it is customary to sacrifice the clothes and furniture used about the sick, and even to scrape the walls and tear down the woodwork of the chambers in which they have been sick. But if consumption be contagious, how perfectly inadequate is this protection by separation. For multitudes who occupy beds in other parts of the hospital on account of other diseases are tuberculous, and consequently must be poisoning the air with phthisical emanations. I was indeed astonished at the number of consumptive patients which this hospital contained. Nearly one hundred beds were occupied by cases of confirmed phthisis. One can hardly realize that so much has been said and written to recommend this city as a residence for consumptives, when some of the best informed Neapolitan physicians estimate the deaths by consumption among the residents at one-fourth of the whole mortality. A separate ward for consumptives is terrifying enough to those who enter it and might well bear the inscription: 'Let him who enters here leave hope behind.'"

THE PLAGUE AND FAMINE OF INDIA.

The varied correspondence from Bombay agrees upon the proportions of the visitation, with the telling commentary that the sanitary conditions are not improving. From Bombay the report comes that "the natives employed in the shops were the first victims. In one large German establishment three natives only out of eighteen remain. The rest are dead; and the Europeans are already beginning to drop off. The plague advances."

In that city the death rate has become quadrupled over the ordinary, when the population counted up to 800,000; now also the panic has become of the wildest. "Several native quarters in the city are absolutely deserted. The cotton mills, that employed thousands of hands, are closed. Merchants and business men have all disappeared, and both importation and exportation have completely stopped. From morning till evening," continues the account, "there is a procession of funerals; and in the evening the sky is reddened with the fires that consumes the bodies. An absolutely terrifying spectacle is presented at the Queen's Road Square, where the Hin-

doos burn their dead. For a considerable distance we can see the huge columns of smoke and hear the wails of the relatives, the lugubrious sound of the cymbals, and the crackling of the blazing wood."

As regards the famine, the same drama of horrors, with the more or less spectral details, possesses the stage. The famine belt is roughly computed to be 1,300 miles long and 400 miles wide, while a fresh food supply is impossible until September. Add to this as evidence of almost incredible vitality that individual adults not infrequently descend in weight to less than fifty-six pounds. "Mere skin-covered skeletons," is the graphic phrase employed.

CORRESPONDENCE.

The Object of the Berlin Leprosy Conference.

NEW YORK, Feb. 16, 1897.

To the Editor:—In a correspondence with Dr. Goldschmidt, December, 1895, a plan was devised by the writer for the formation of an International World's Committee, composed of delegates of all governments. This plan was submitted to Dr. Hansen, who approved of it, and submitted it to the Norwegian government through his chief, Dr. Holmboe. The answer came back that before Norway issued the invitation, it was necessary to obtain a general opinion of the leading leprologists. Dr. Hansen said that his government would probably ask a credit of parliament for the expenses of the Congress.

The Provisional Committee was formed of Goldschmidt, Hansen and Ashmead. The plan was explained to the public in medical newspapers, and was brought to the attention of the leprologists through private correspondence. It seemed to be generally approved. It remained to determine the seat of the Congress. Here there was a divergence of opinion. Some were for Bergen, others for London. Moscow was proposed also, especially as there was to be there a general medical Congress.

When we had brought the matter so far, suddenly Dr. Ehlers started a committee of his own. It seems that before we had thought of a Congress he had, perhaps two years before us, revolved in his head, "while investigating leprosy in Iceland," a plan for some kind of palaver, or learned talk, between *renowned* leprologists who, giving their opinions either in German, or English, or another language, would by their eloquence destroy the scourge of leprosy. Anyone will admit that there was not much originality in the idea.

He succeeded in forming a committee in Berlin, and persuaded Dr. Hansen to go with him. They issued an invitation to a debate.

Our idea was, and always has been, that the only way to combat and eventually destroy the dreadful scourge, was the isolation of lepers, enforced by law. In one generation, leprosy not being hereditary, the victory would be complete. Remedy for the disease there is none. Experimentation with the bacillus for twenty-five years has resulted in nothing. The disease is certainly contagious, and spreads only by contagion, directly or indirectly. Therefore isolation alone can conquer, and no learned talk, no amusing communications of experiences, are of any use. Any man who really, as a physician and a philanthropist, wants truly to fight the dreadful enemy, must stand for isolation. Salaries may be gained, high positions may be occupied, commissionships may be enjoyed, the honor of being sent as delegates to conferences, or other palavers, may be obtained, and, though a number of *renowned* leprologists, whose works are *known*, will become still more *renowned* and their works still better *known*, yet leprosy will continue to gnaw at the vitals of the race.

Dr. Ehlers speaks of the "capacity of discussing a good cause." This is, in his opinion, all that is wanted in Berlin. As if that good cause had not been discussed by men even greater than Dr. Ehlers himself for 2,000 years!

We wanted to *do something:* they come together to talk.

Dr. Ehlers says that the governments are only invited to send delegates, but that these delegates will have no special function in the Berlin Conference.

That is, every active means against the disease must be avoided like poison, and nothing but talk is to take place, absolutely nothing but talk. It is a conference to amuse us fellows, us leprologists, not at all to destroy the most horrible punishment that ever nature has put upon mankind.

Dr. Ehlers says that he has "no use for governments," because they have always neglected the holy name of hygiene. But we wanted only that, and did not think, and do not think now, that anything can be done except by "stirring up the governments." Does Dr. Ehlers really believe that talking is better than "stirring up the governments?" Can the disease be stopped in Iceland in any other way than by the operation of the Danish government? Will they stop it by the talk and reciprocal compliments in Berlin? The doctor himself in his *known* works, says that in no other way can leprosy be conquered in Iceland except by isolation. But these things seem to be expected to happen, only a hundred years after the Berlin Conference has met, and the great talking has come to an end.

Until our great grandsons see that happy ending, let us talk and discuss, and enjoy the company of all the *renowned* leprologists, and praise their celebrated works. Talk is the order of the day.

To put our opinion in a few words: We want to have official delegates from every government, to meet at stated intervals, who will form a permanent committee.

We declare at once that we are contagionists, and that we do not believe that anything but absolute isolation can destroy a disease which afflicts nearly a million of human beings. Such a committee can not but be for isolation. In this respect, we are intolerant. We are also intolerant in this: We condemn every effort that is made against vaccination. We are for vaccination as we are for isolation. We confess to be entirely intolerant in this respect.

There is to isolation but one great opponent today, it is England. The maintenance of her 200,000 Hindu lepers, not to speak of her West Indian and other lepers, would be an enormous expense. Engand is opposed to isolation from utilitarian considerations. Recently, as Mr. Jonathan Hutchinson tells me, measures for the isolation of lepers in India were withdrawn from Parliament because of the opposition which he led against them. His opposition was certainly not of a scientific, and still less of a philanthropic character.

The Berlin *Conference* will meet, the Berlin Conference will go. It will have been very interesting; it will be, as Prince Bismarck said to the Battenberger, "a pleasant thing to remember afterward," but there will be at least (probably much more than) 200,000 lepers in India, 100,000 in China, 100,000 in Japan, 27,000 in Colombia, 5,000 in Russia, 3,000 in Brazil, 500 in Cuba, 500 in the United States and *159* in Iceland, the place where Dr. Ehlers has had his only experience of leprosy, and where he prepared himself for the palaver which is to take place in Berlin, October, 1897. There the world will be told by several *renowned* leprologists how the leper problem can be solved without isolation; but if the numbers quoted above are not increased at the time when all that science becomes public, I shall be very much astonished.

Very interesting theories will no doubt be expounded. If Dr. Wernich were living, he would, if he had not changed his

mind since he wrote on leprosy in Japan, explain how the disease arises from a depravity of digestion, caused by the excessive absorption of rice. He, I suppose, is one of the *renowned* leprologists whose works are *known* to Dr. Ehlers, and it is to be hoped, for the amusement of all the scientists who will meet in Berlin, that there are still other men living who possess no less imagination than Dr. Wernich.

We do not care very much about the greater or less renown of a leprologist; this is absolutely of no account in our business. We might say that Dr. Hansen is the greatest of leprologists, because he chanced to light on the bacillus. Yet the discovery of the bacillus has not saved one human being, has not diminished the sufferings of a human creature. If a thousand leprologists, as great as Hansen, meet, they will not do more than Hansen himself has been able to do. Not any of the *known* works of the learned gentlemen can do more than the discoverer of the bacillus has been able to do. All that the greatest of leprologists has been able to do, was done by isolation, imposed by his own government, and independently of the bacillus, and *without palaver*.

ALBERT S. ASHMEAD, M.D.

P. S. In a letter dated Nov. 16, 1896, to Dr. Goldschmidt of Paris, Dr. Ehlers, the Secretary of the Berlin Leprosy Conference Committee, said "that he could assure him that Dr. Hansen had never approved the project of Dr. Ashmead, and that the latter acted without any kind of authority from the Norwegian government, and even without the formal authorization of Dr. Hansen."

In a letter to me dated Sept. 4, 1896, Dr. Hansen says: "I should best like if you and Dr. Goldschmidt alone took the task of convoking the Congress on your shoulders; but should you think it very desirable to have my name, you may use it, but on the condition that the Congress is only regarded as arranged by us. If the Congress then will meet in Bergen, I hope still that the Norwegian government will pay the business matters; the best would be, if the participating governments each paid their tribute.

"If the Congress shall not be secured without its help, the government will probably ask a credit to furnish the Congress with a secretary, local (place), for the meetings, and other matters of business."

This shows conclusively, I think, that Dr. Hansen permitted the use of his name on our provisional committee, and gave us warrant to use the name of his government.

ALBERT S. ASHMEAD, M.D.

"Independent Medical College" Mill.

TECUMSEH, MICH., Jan. 8, 1897.

To the Editor:—I inclose you what purports to be a medical journal. It certainly is the rankest thing I ever saw. Is it not likely that it is the child of the Wisconsin Eclectic Medical College? You will notice that the editor is J. Armstong of Chicago. I have looked him up in Polk's Medical and Surgical Register of the United States, 1896, and find that he lives at 683 W. Van Buren St., but following his name is the little star that refers to the following note at the bottom of the page: "No report received in answer to inquiry regarding graduation." J. H. Randall, Ph.D., M.D., is given as associate editor, but his name does not appear at all in Polk's Register and I mistrust he is a myth. I am lead to this belief by comparing the name, with those given on page 14 in the article, "Report of Proceedings of the United States Medical Liberty League." It is stated that several persons met to organize the league in response to invitations of the faculty of the Independent Medical College, and in the proceedings the names of five M.Ds., are given, namely: J. Armstrong, Mary E. Sellen, C. K. Drumheller, A. J. Clausen, J. H. Randall. The first two are given in Polk's Register. Mary E. Sellen is or was a resident of Columbus, Ohio, and her school of practice is given as "Sci.," if any one knows what that is. The names of the other three organizers of the United States Medical Liberty League can not be found in Polk's Register anywhere in the United States. I have no doubt that J. Armstrong and Mary E. Sellen are the prime movers and that they are the officers and members of the league. On the last page of cover is an advertisement of the Independent Medical College, which announces that "This school advocates a new and successful method of acquiring a medical education." The names of the members of the faculty are not given if there are any, but as the announcement is the baldest possible bid for the sale of diplomas without college attendance, and as the journal is avowedly opposed to all medical legislation, it is almost certain that J. Armstrong and Mary E. Sellen are "the journal," the league and the college, all in *two*. On page 16 are the opinions of doctors who have read No. 1 of the *Medical Liberty News* (this copy is No. 2) and have words of commendation for it. There are just six of them, and three of them have the suspicious and tell-tale star following their names in Polk's Register, and the names of the other three do not appear at all. The object of the "Liberty league" seems to be to organize and raise funds to oppose all medical legislation and in case any member of the league is prosecuted for illegal practice to help him with funds and prestige. On page — occurs this fine statement: "We also declare persisent and uncompromising warfare against the practice of *vivisecting live animals*."

I send the pamphlet to you in the hope that you will put it into the hands of the proper officials and that they can by legal means shut up the "diploma mill" at least. Their journal and the "league" are beyond the reach of the law, I fear.

I am very respectfully yours, L. G. NORTH.

Massage.

CHICAGO, ILL., Feb. 15, 1897.

To the Editor:—In the JOURNAL, issue of Jan. 9, 1897, there appeared a part of a serial article on "Massage," written by myself, which was "to be continued." As the continuation did not appear, I wrote to you about February 12 inquiring the reason thereof and received from you the following reply:

"*Dear Doctor:*—I have your letter of February and have to say that after publishing the first part of your article we had a protest from Dr. Douglas Graham, in which he claimed that a large portion of the history of massage was taken from his book, a charge which seems to be sustained, etc."

1. Now, as a matter of fact, I did quote Dr. Douglas Graham some and wherever I did I think I gave him credit for it. I did not put his name at the end of each line, but at the end of certain articles. If I should have neglected to do this in any instance it was an oversight and I beg pardon of Dr. Graham.

2. I challenge Dr. Graham to prove that the "Ancient History of Massage" as I have written it *is entirely original with him*, and I will prove to him that there are a score of books on the subject by other authors who use language similar or like it in part. Dr. Graham can not quote ancient history and call it his own.

3. Get a number of books on any subject (medical), as surgery, for instance, and does not one author quote the other or a dozen others?

4. I do not know as I quoted Dr. Graham any more than other authors; if I did, then he ought to be proud of it.

Since when is medical literature private property?

Respectfully yours, JOHN KERCHER, M.D.

Embryonic Specimens Wanted.

BALTIMORE, MD., Feb. 20, 1897.

To the Editor:—During the last ten years I have appealed to physicians from time to time to send me the human embryos which fell into their hands, and have in this way procured some very valuable specimens. These specimens have been cut into sections, and are now being modeled and studied very carefully. Yet a number of important stages are still wanting, and I therefore ask through your columns that physicians send me any material which they may obtain.

The best method to preserve human ova is to place the unopened ovum, without handling, and as soon as possible, in strong alcohol. By this method the embryo within is well hardened for future microscopic study.

It is very injurious to wrap these delicate specimens in cotton before sending them by mail or express. A perfect method is to place the preserved specimen in a bottle filled completely with alcohol, thus imitating the condition of a *fetus in utero*. If there be no air or cotton in the bottle, it is almost impossible to injure the embryo by shaking it. Very sincerely yours,

FRANKLIN P. MALL,
Professor of Anatomy, Johns Hopkins University.

Spitting in School Rooms.

PHILADELPHIA, PA., Feb. 4, 1897.

To the Editor:—If the numerous articles that are being published throughout the United States in the leading newspapers are true; that is, that tuberculosis is an infectious disease, and one of the most dangerous ways of spreading the disease is through the spittle, do you not think the placing of steam or hot-water pipes, coils or radiators in a school room where fifty or sixty pupils are congregated for hours, is highly unsatisfactory? The spitting upon the floor in a school room by teachers or pupils whose antecedents were infected with tuberculosis seems to us would dry, become finely powdered and, as all of the air in a room must go to the radiating surface to be reheated, would be the means of thoroughly distributing the germs of that disease. Possibly this is true of other diseases, such as diphtheria, scarlet fever, smallpox, etc. What is your opinion on the subject? Respectfully yours,

The SMEAD & WILLS WARMING AND VENTILATING CO.

The "Surfeit."

ATLANTA, GA., Feb. 14, 1897.

To the Editor:—Will the erudite editor of the JOURNAL kindly inform me what is meant by the term "surfeit," as applied to the affection to which the death of medieval monarchs was commonly ascribed? We read that Henry VIII died of "a surfeit"; was this his malady, or is it a vaguely facetious reference to his uxoriousness?

BERNARD WOLFF, M.D.

ANSWER:—Crapula (or cræpula). It is also κραιταλη, a surfeit. A disorder from something taken into the stomach, and occasionally a sickness or at least a loathing of the offending matter. It sometimes signifies a plethora from indulgence and full but improper feeding, in which case perspiration is checked and eruptions formed on the skin. It is sometimes called the *cholera accidentalis*.—Bartholomew Parr's "London Medical Dictionary," 1819.

The Variously Quoted Stanza Again.

To the Editor:—Many years ago I picked up in London an old volume of medical rhymes published in the last century, and in this "God and the doctor" ran thus:

"God and the doctor we alike adore,
Only when in danger, not before,
The danger o'er both are alike requited,
God is forgotten and the doctor slighted."

This is certainly another verse than any quotation so far given in the JOURNAL. W. S. CALDWELL, M.D.

PUBLIC HEALTH.

Vaccination in Afghanistan.—The *Gaz. d. Osp. e d. Clin.*, January 5, states that Miss Lilias Hamilton, special physician to the Emir of Afghanistan, has succeeded in impressing upon her royal client the importance of preventive vaccination. He has ordered the necessary steps to be taken to introduce it into his domains, with Miss Hamilton in charge of the service. More than a fifth of the children there die every spring from smallpox, and the country will owe a large debt of gratitude to "Jenner's valorous proselyte," when such ravages cease.

Epidemic Icterus.—G. Mori publishes a study of an epidemic of thirty cases of icterus at Chiusi, in the *Gaz. d. Osp. e d. Clin.*, of January 10. His conclusions are that it was caused by some infective agent belonging to the same category as the microbe of malaria, and that this agent entered by the mouth and produced a duodenal gastro-enteritis. The toxic products of this infection then affected the main biliary passages, from the portal vessels to the hepatic cells, resulting in icterus.

Is Consumption Disappearing?—Dr. Arthur Ransome, of Manchester, England, thinks that "if phthisis were to continue to diminish in prevalence at the same increasing rate of decline for another thirty years it would then have entirely disappeared. The first great drop in its rate took place in the decade 1840 to 1850, about the time that serious attention began to be given to sanitary reform and especially to land drainage. It then remained scarcely reduced for about seventeen years; but from 1867 to 1894 it has been steadily on the decline. It is in this period that most of the great sanitary work has been carried out in this country." Surely here is an indication in what direction an effort should be made toward stamping out a disease which is said to carry off one-seventh of the human race. One would think insurance companies would be the first to promote a reform of this character, but they will not. Their method of covering a risk is to charge an extra rate. There is no extra rate against death from consumption.—*Medical Examiner.*

The Anti-Cholera Serum of Kitasato.—The *British Medical Journal* has an annotation regarding Kitasato's work in regard to cholera prevention, from his assistant bacteriologist, Dr. Nakagawa. The latter reports the results of the serum in one hundred and ninety-three cases. The former rate of mortality (among Japanese) has been about 70 per cent. In these cases the percentage was lowered about 20. The subsidiary results are similar to those of diphtheria antitoxin: 1. Urticaria, very common. 2. Arthralgia, observed in only eighteen cases. 3. Myalgia in six cases. The difference in prognosis, according to the time which had elapsed before coming under observation, is shown as follows: Less than eight hours, no deaths; eight to twelve, 22.2; twelve to twenty-four, 32.1; twenty-four to forty-eight, 39.7; forty-eight to seventy-two, 38.7; over seventy-two, 31.1 per cent. mortality. Three cases were observed in children under two years of age.

Cholera in England.—A note of alarm has been struck by the news that a transport with cholera on board had arrived at Plymouth Sound. It is questionable how the infection got on board, but most probably it was conveyed from Port Said by the fruit purchased there. Probably in any other country but Britain the disease would have been landed and gained ground, but here Dr. Williams, with Surgeon-Major-General Hamilton set to work and took immediate and perfect precautions. The excellence of our medical officers of health can not be overestimated. Our readers may remember that in 1892, although thirty-five cases of cholera reached these shores, it did not spread in one single instance. We do not think England will ever be again visited by such terrible epidemics as those of sixty or less years ago; the medical inspection arrangements are so perfect and our system so excellent, despite the silly people (some of them members of the medical profession) who "rush in where angels fear to tread" and advertise their stupidity by trying to create panics. Our present arrangements are not merely for infected parts, but they provide for careful watching over possible far away centers of infection. They are in every way practical and far above the extraordinary mystical performances (called "hygienic") of continental countries.—*Medical Times* (London), January 23.

The Death Rate of London in 1896.—The total number of deaths in London in 1896 was 81,721, with a rate of mortality of 18.2 per 1,000 living; the population was estimated on July 1, of

that year, at 4,421,955. The deaths of infants under one year were in the proportion of 160 in each 1,000 registered births. The death rate in London was lower in 1894, at 17.4 per 1,000; and in 1893 and 1895 at 20.9 and 19.4, respectively. Measles cost 3,692 lives, diphtheria with croup, 2,663, whooping cough 2,931, scarlet fever only 940, enteric fever 564, typhus 5, diarrheal diseases 3,192. The mortality by measles, diphtheria and whooping cough was in excess of the average of the ten years last past; that by variola and scarlet fever was lower. The death rate from all causes, at 19.4 per 1,000, with only two exceptions, is the lowest on record for that city and was 1.6 per 1,000 lower than the ten years' average. Of reportable diseases, smallpox had 225 cases with 9 deaths, scarlet fever 25,647 cases, diphtheria 13,808 cases, measles and whooping cough sickness cases are not registered, membranous croup had 446 reported cases that are included in the total for diphtheria, enteric fever 3,190 cases, erysipelas 6,436 cases, puerperal fever 277 cases. Total report cases 49,705. Work done by the medical profession, in the way of report making, not much under 131,426 cases, and certificates of death, not a small item.

Bovine Tuberculosis in New York.—The action taken by the Health Department of New York City regarding tuberculous cattle and the milk supply is of considerable importance to that community. It has been found that 15 per cent. of the 1,500 cows within the limits of this municipality were diseased and killed by order of the Board. The herds in the great dairy districts of the State are doubtless, equally with these, purveyors of the bacilli of tuberculosis to the people of that city and of all the other cities and towns of the State. In the face of these facts the Legislature has failed thus far to appropriate money for the protection of the people against this great menace to the health of this and future generations. The State Board of Health stands ready to co-operate with local boards in this matter, but can do nothing without funds for the employment of experts and the compensation of cattle owners whose animals it is found necessary to destroy. The time has come when the people should demand that this preventable disease should be stamped out, and whenever such demand shall be made we believe it will be heeded.—*Medical Review*, January.

New Instructions for English Vaccinating Officers.—New instructions have been issued by the Local Government Board, relating to public vaccinators, the following paragraphs being substituted for those similarly numbered in the schedule of the previous order: (5) "Endeavor to maintain in your district such succession of cases as will enable you to vaccinate with lymph directly from arm to arm at each of your contract attendances. When stored lymph, whether humanized lymph or calf lymph, is used, it should be preserved either dry on ivory points thickly charged and constantly well protected from damp; or liquid in tubes hermetically sealed at both extremities. With all stored lymph caution is necessary, lest in time it have become inert, or otherwise unfit for use." (6) "Consider yourself strictly responsible for the quality of whatever lymph you use or furnish for vaccination. In storing lymph, be careful to keep separate the charges obtained from different subjects and to affix to each set of charges the name, or the number in your register, of the subject from whom the lymph was derived. Keep such note of all supplies of lymph, whether humanized lymph or calf lymph, which you use or furnish, as will always enable you to identify the origin of the lymph. Do not employ lymph supplied by any person who does not keep exact record of its source."

Antisepsis in the Treatment of Infantile Diarrhea.—The part played by bacteria in the production of the diarrhea of infants was suspected and practically admitted by many long before the researches of Escherich and others had established this theory of its origin upon a scientific basis. According to the observer just mentioned, the two forms of germ life most active in the diarrhea are the production of bacterium coli and the bacterium lactis. The influence of the latter will suffice to explain why it happens that a large number of cases of infantile diarrhea—we might almost have said all such—become amenable to treatment when the usual milk dietary is reduced, or even for a short time discontinued, in favor of one consisting of fresh raw meat juice. The bacterial hypothesis explains also the success which has in a number of cases attended the temporary discontinuance of all nourishment and the substitution in its stead of boiled and subsequently cooled water given frequently in small quantities. This method, which has recently attracted some attention in France (*Journal de Clinique et de Thérapeutique Infantile*, January 14), is not altogether novel. Its *modus operandi* in cleansing and procuring rest for an overwrought bowel while maintaining blood pressure by its ready absorption calls for little explanation. Something also remains to be said in favor of the procedure, often successfully employed in the case of dysentery, which obeys the same teaching, and by combining a sedative with an excitant of the liver aims at producing by means of the bile the moderate action of an antiseptic force which is resident in the body itself.—London *Lancet*, January 30.

Lack of Consistency of the Royal Commission on Vaccination in Great Britain.—At the last council meeting of the Epidemiological Society, held on Jan. 15, 1897, it was resolved to submit a resolution, in reference to the recent report of the Royal Commission on Vaccination, to the next ordinary meeting for adoption, in tenor somewhat as follows: That this society while noting with satisfaction the pronouncement of the Royal Commission as to the value of primary vaccination, and the necessity for maintaining it, regret that, although the report also brings forward conclusive evidence as to the value of revaccination, the Commissioners have not *had the courage of their conviction and recommended legislation which would place it on the same basis as primary vaccination*. The Epidemiological Society in former years took an active part in the question of vaccination, and its carefully prepared report on the subject was of material assistance to the Legislature in framing the Vaccination Acts. Doubtless the increasing proof of the need of revaccination as a protective which the experience of later times has brought may have weighed with its council in submitting the above resolution to the society. If it does nothing more it will at any rate show that those who have the best opportunities of judging the question are persuaded of the importance to the community of securing a system of revaccination comparable to that to which Germany owes her immunity from smallpox.—London *Lancet*, February 6.

Model Buildings for the Tenement House Class.—The City and Suburban Homes Company of New York, incorporated in July last with a capital stock of $1,000,000, which is said to have been more than fully subscribed, is founded for the purpose of supplying improved dwelling places to wage-earners. The first block is to be on a plot of ground between Tenth and Eleventh Avenues and Sixty-eighth and Sixty-ninth Streets. Each building is to be 100 feet square, and of the 10,000 square feet 3,000 are to be given up for light and ventilation; each is to have an interior courtway 30 feet square, and in a block 200 by 400 feet an east and west courtway 20 feet wide runs through the entire block. Each building is to be divided into four compartments by walls from cellar to roof; the construction is to be slow-burning, and the stairways are to be fireproof and brick inclosed. The *Independent* says: "The tenement does not merely repress, it destroys. Transfer to it the most intellectual and refined family in America and in the course of a few generations—provided the usual condition of complete helplessness were added to poverty—the process of degeneration

would be completed. The sole real reform of the tenement is its abolition; there is no middle stage. The architect of the first block of improved dwellings expects to be able to show that the construction of separate dwellings upon the usual city lot is a senseless waste of ground-area in walls, and makes proper lighting and ventilation impossible; while by building in common upon such lots the waste in walls can be minimized, more space for light and air can be had, no rooms need be dark and interior open spaces can also be had. A reach beyond improved tenements is also intended; suburban homes in the shape of detached and semi-detached cottages are proposed along rapid transit lines. The purchaser is to pay down 10 per cent. of the price, having ten to twenty years for the remainder; an interesting feature is that the company will insist on insuring the purchaser's life, at its own expense, as a guarantee to his family. It would be insincere and idle to pretend that decent dwellings are as profitable to the owner, in money, as the abominable tenement has been or could be; it is for the law to say and see that the latter profit shall cease to be. But decent dwellings can be reasonably profitable; happily, there is no room for doubt about that. They are a fair investment and capital need not fear to take counsel of philanthropy."

NECROLOGY.

ABRAM VAN NEST BALDWIN, M.D., College of Physicians and Surgeons, New York, 1882, died from pneumonia at his home in New Brunswick, N. J., February 14. He was a son of Dr. Henry R. Baldwin and was born Nov. 16, 1858. Among the positions held by him were the Secretaryship of the Health Board, of which he was also a Sanitary Inpector, and held a membership in the Board of Education, his second term of service. He was a man of much industry and promise.

RALPH ERSKINE SWINBURNE, M.D., Bellevue, New York, 1877, died of acute atrophy of the liver, at his home in New York city, February 14. He was born at Rouse's Point, New York, Dec. 27, 1853 and came to New York in 1874, beginning general practice in Fordham, when it was a far distant suburb. In 1879 he came to Harlem (N. Y. city), and devoted himself to diseases of the eye, ear, throat and nose, believing that they were more satisfactorily treated in groups, than by the current methods. In 1881 he founded the Harlem Eye, Ear and Throat Infirmary, of which he became chief surgeon. He was also consulting ophthalmologist of the J. Hood Wright, formerly the Manhattan, Hospital. He was a member of the Academy of Medicine, of the County Medical Society, and of the Harlem Medical Association. He was a nephew of the late Dr. John Swinburne of Albany, N. Y., after whom the artificial quarantine island was named, and who for some years was Health officer of the port of New York. A daughter by his first wife, a son and second daughter born six hours previous to his death, together with the mother are his survivors. His mother is also still living.

SATURNINO M. JIMENEZ, M.D., Jefferson Medical College, 1878, was a son of Antonio Jimenez, a planter of Mantanzas, Cuba, where he was born in 1851. After a distasteful trial of the shipping business in this country he began the study of medicine, and after his graduation went to Paris. After a year spent in that city he returned to Philadelphia to enjoy the benefits of the hospitals there but finally came to New York to manage the practice of a friend who was compelled to go to Europe for his health. He was a member of the Marti Relief Association and was well known in the Cuban colony. The date of his death was February 17.

S. GRATZ MOSES, M.D., Medical Department University Penn., 1835, died in St. Louis, Mo., Feb. 22, in his 85th year. He was a Pennsylvanian by birth and before going to St. Louis was physician to Joseph Bonaparte, the elder brother of Napoleon. As a member of the AMERICAN MEDICAL ASSOCIATION he was well known, particularly in its earlier history. He has the credit of having established the first dispensary in St Louis.

HENRY A. CREAMER, M.D., Bellevue Hospital Medical College, New York, 1892, died in Brooklyn, N. Y., aged 25 years, on February 20. He was the youngest son of the late Dr. Joseph Creamer of that city.

Dr. LEVI W. BALLARD, a graduate of Cleveland Medical College, 1848, at Auburn, Washington, January 30, age 81 years. ——Dr. J. J. Armstrong, at Caldwell, Idaho, January 14, 1897. Dr. F. Froman, at Caldwell, Idaho, Jan. 7, 1897, aged 73 years.

SOCIETY NEWS.

New York Academy of Medicine.—At the annual meeting in January (see JOURNAL, February 6), the President reported the following officers for the ensuing year: President, E. G. Janeway; vice-president, Everett Herrick; trustees, Joseph D. Bryant, Clement Cleveland; committee on library, C. H. Knight; on admissions, Thomas E. Satterthwaite. The scientific business of the meeting was introduced by a paper by Dr. H. D. Chapin upon the prevention of the spread of contagious diseases, in which the author emphasizes the view that the public schools were the most potent factor in such spread. Especially is this true of the schools in the poorer sections of the city. All the elements favoring the spread of disease are found there. The ventilation is poor and the cubic air space insufficient, being much less than the board of health requires for lodging houses. Great stress was laid upon the unsuitableness of the wardrobes and places for hanging clothing. Damp clothing should not be hung in the school room nor should it be placed in close unventilated wardrobes, so favorable to the development of pathogenic germs. Dry, well-ventilated rooms should be provided for this purpose. In the discussion following this paper, Dr. George B. Fowler, health commissioner, called attention to the work which is being done by the board of health of the city. He stated that the city has been divided into thirty-five districts, with an inspector for each district, whose duty it is to report all cases of contagious diseases to the department, and that by this system it was expected to reduce the rate of contagious diseases in this city by at least 5 per cent. Dr. Fowler presented statistics showing the difference between the years 1888 and 1896 in the death rate by contagious diseases. 1, the percentage by population; 2, the percentage by cases; 3, the total number of deaths, showing a marked decrease in 1896 over 1888. He stated that much of this decrease was due to the system of inspection established by the board of health, and that he was perfectly satisfied that the death rate can be still further diminished. He believed that this would be the better accomplished if the board of health had thorough control of these cases, and emphasized the fact that at the same time the profession at large would not be interfered with in the least.

Milwaukee Medical Society.—At a meeting of the Milwaukee Medical Society held on the evening of Jan. 26, 1897, action was taken regarding the antivivisection bill, No. 1552, recently favorably reported to the United States Senate. A committee of three was appointed by the president of the Society to draft resolutions expressing the sense of the Society upon this matter, to report to the Society at the next regular meeting. This committee met in accordance with instructions and reported the following:

MR. PRESIDENT: Your committee to whom was referred the matter of framing resolutions to express the sense of this Society in regard to the bill to prevent vivisection in the District of Columbia, have the following report to make:

WHEREAS, The United States Senate Committee on the District of Columbia has reported to the Senate a bill No. 1552, to suppress vivisection in the District of Columbia, recommending it for passage, and,

WHEREAS, The Milwaukee Medical Society believes that the favorable report thus returned to the Senate is the result of

misrepresentations to the committee by certain fanatics who have no proper knowledge of vivisection and its relations to modern medicine and surgery; and that this Senate committee have heard practically no evidence from those who by their knowledge of this matter are capable of properly representing it; and,

WHEREAS, The passage of this bill would entirely suppress modern and progressive methods of medical investigation in the District of Columbia, therefore, be it

Resolved, That the Milwaukee Medical Society most heartily disapprove of this pernicious bill and beg of Wisconsin's Senators and members of the lower house to do all they can honorably do to prevent its passage, at least until they have heard from the teachers of physiology and biology of our leading medical colleges. Be it further

Resolved, That a copy of these resolutions be sent to each of our United States Senators and Representatives as soon as it may seem expedient to the Society to do so.

J. M. MADDEN, M.D.
U. O. B. WINGATE, M.D.
SAMUEL H. FRIEND, M.D.
Committee.

At a meeting of the Society held on the evening of Feb. 9, 1897, a motion was made to amend by adding that copies of these resolutions be sent to each medical association of Wisconsin, sufficient for their endorsement, one to be sent to each of the United States Senators and one to the Congressmen in whose district the societies meet.

This amendment was amended by including, for the same purpose, all higher institutions of learning in the State, the university, colleges and normal schools.

American Laryngological, Rhinological and Otological Society.—The meeting of the Southern Section of this Society will be held in New Orleans, La., Wednesday, March 3, 1897, at the new St. Charles Hotel.

Address of welcome by Dr. Jno. B. Elliott, Chairman of Reception Committee. Opening address by Dr. W. Scheppegrell, President of the Section, "The Progress of Laryngology." Address by Judge A. G. Brice, Chairman Auxiliary Reception Committee, "The Division of Labor and the Development of Specialism."

Papers will be read by Drs. E. B. Dench, New York, N. Y.; A. W. Calhoun, Atlanta, Ga.; Robt. C. Myles, New York, N. Y.; Arthur G. Hobbs, Atlanta, Ga.; Augustus McShane, New Orleans, La.; T. C. Evans, Louisville, Ky.; Norval H. Pierce, Chicago, Ill.; D. Ziem, Dantzig, Germany; J. A. Stucky, Louisville, Ky.; Louis J. Lautenbach, Philadelphia, Pa.; Edward F. Parker, Charleston, S. C.; J. Aloysius Mullen, Houston, Texas, and W. Scheppegrell, New Orleans, La. Members of the medical profession are cordially invited to attend.

Officers of the American Laryngological, Rhinological and Otological Society: Frank Hyatt, president, Washinton, D. C.; Robt. C. Myles, secretary and treasurer, New York, N. Y.; vice-presidents, Frederick L. Jack, chairman eastern section, Boston, Mass.; John S. Mabon, chairman, middle section, Alleghany, Pa.; W. Scheppegrell, chairman southern section, New Orleans, La.; James E. Logan, chairman western section, Kansas City, Mo.

Southern section: W. Scheppegrell, president.

Reception committee: J. B. Elliott, chairman; W. S. Bickham, J. D. Bloom, W. E. Brickell, Chas. Chassaignac, F. Formento, C. A. Gaudet, Joseph Holt, A. McShane, B. A. Pope, E. T. Shepard.

Schuylkill (Pa.) County Medical Society at its last annual meeting elected the following officers: A. F. Bronson, M.D., president; H. C. Bowman, M.D., vice-president; J. W. Coble, M.D., secretary.

MISCELLANY.

Appointment.—Dr. R. G. Black of Castle Rock, Wash., has been appointed superintendent of the St. James Hospital at Vancouver, Wash.

The Journal of Cutaneous and Genito-urinary Disease has changed its management and is now published at 115 West 84th Street, New York. It is edited by James C. Johnston, M.D., and George K. Swinburne, M.D.

Calculus in Wharton's Duct.—A tumor in the mouth was about to be extirpated when it opened spontaneously and discharged a calculus, which Lavoine assumes had originated in Wharton's duct.—*Nord Méd.*, January 15.

Five Months' Retention of Fetus.—Nearly six months elapsed before the fetus was finally expelled from the uterus. It was mummified, and the placenta was distinctly albuminous.—*Lyon Méd.*, No. 51, 1896.

Kobert's Resignation.—Dr. E. R. Kobert, professor of pharmacology, dietetics and the history of medicine at the University of Dorpat, Russia, has resigned his chair and left Russia to assume the management of the Brehmer Sanitorium. His name is familiar in connection with various preparations.

Dispensaries in Private Residences in Havana.—The bishop and a physician named Penichet have each established a free dispensary for children in the ground floor of their homes and in the former the children also receive an allowance of milk. The children in the orphan asylum have been transferred to a convent and the asylum turned into a military hospital.—*Archivos de la Policlinica*, January.

The "Ophthalmic Record," now in its sixth year has been enlarged and improved and its editorial and publishing offices removed to Chicago. It is edited by the well-known ophthalmologists, George E. de Schweinitz, G. C. Savage, Casey A. Wood, John E. Weeks, F. C. Hotz, H. V. Würdemann, W. E. Hopkins, Harold Gifford. T. A. Woodbury is editorial secretary. Published at 214 South Clark Street.

Bequests to Hospitals.—Mrs. Mary L. Wood of Bridgeport, Conn., has left by will a bequest of $15,000 in cash and other property of value. Of this amount $10,000 is set aside to establish two free beds. Mrs. Wood some time ago donated $20,000 to the same institution for the purpose of building a suitable surgical ward. The Bridgeport Orphan Asylum, the Protestant Widows' Home and the Charitable Society will also get about $20,000 each.

Insurance Fees Forty Years Ago.—The *Boston Medical and Surgical Journal* (Vol. IX) some forty years ago expressed the following views anent life insurance companies, singularly like those pretty generally held by the profession today:

"Of all corporations they seem to be the most soul-less. An institution which pays a medical man one dollar (when it pays him anything) for an opinion which no lawyer would give under fifty dollars, is not likely to listen to any proposition about reducing its charges, however probable it seems that its earnings would thereby be greatly increased."

In Memoriam of Professor Huxley.—A memorial very fittingly conceived and carried out by some of the friends of the late Professor Huxley will henceforward be a mark which English travelers in Switzerland will strive to attain. On the shores of Sils Lake at Maloja, in the Engadine, a spot which was to Huxley what Asolo was to Browning, a huge block of granite has been engraved with the following inscription: "In memory of Thomas Henry Huxley, the illustrious English writer and naturalist, who passed many summers at the Kursaal Hotel, Maloja. Erected 1896."—*American Practitioner and News*, January 9.

Professor Koch's Plans.—Professor Koch has so nearly concluded his work in South Africa that he will soon return to Berlin. He will take with him his newly discovered serum, which promises to become an immunizing treatment for the rinderpest. He is unable to state whether or not he will be able to prevent all domestic animals from being infected with the disease. He has demonstrated that sheep and horned cattle are the most liable of all animals to contract the disease. Dogs, monkeys and rodents enjoy complete immunity from it. Dr. Koch, it is said, does not purpose to go to Bombay to study the bubonic plague, despite the fact that he has been asked to head the commission which is to be sent to Bombay for that purpose.

Cilium Within Anterior Chamber Causing Tumor.—At the December meeting of the Liverpool Medical Institution, Mr. R. Williams showed a drawing of a tumor of the iris due to the presence of a cilium in the anterior chamber. The patient, a stonemason aged 22 years, had received an injury to the left eye two years previously. As evidence of this there was a linear scar on the cornea opposite the tumor. The cilium lay across the upper part of the anterior chamber with its root apparently embedded in the tumor. The tumor was rounded and supposed to be a cyst; when the anterior chamber was opened and the cilium removed the tumor was found to be devoid of cyst wall, and was probably composed of proliferated epithelium from the root sheath of the hair.—*British Medical Journal.*

Large Gifts to Charities.—In December, 1896, Miss Thurston, the last member of a wealthy and generous Brooklyn family, died and by her will just admitted to probate, a fortune has been distributed among various charities and institutions. About $25,000 was given outside the city of her home, but her benefactions to the charities in Brooklyn were equally large: Brooklyn Home for Consumptives, or Garfield Memorial Home, $3,000; Faith Home for Incurables, $2,000; Brooklyn Howard Colored Orphan Asylum, $2,000; Brooklyn Bureau of Charities, $3,000; and four other charities $20,000 among them. During her lifetime Miss Thurston had given much more than remained to be distributed by the will, and it is said that she was personally known to but few of her beneficiaries. "She lived very simply that she might have the more to spend on others," has been aptly and truthfully said of her.

Washington's Medical Nephew.—It is not generally known that a nephew of the first President of the United States was a member of the medical profession. Dr. Bailey Washington entered the United States Navy as a surgeon in 1810. He died Aug. 5, 1854, at the age of 72. He was the surgeon of the *Enterprise* when she captured the *Boxer* during the war of 1812. He afterward acted with great efficiency on Lake Ontario under Commodore Chauncey and was selected by him as fleet surgeon, although a junior officer in the service. He was afterward fleet surgeon under Commodores Rogers, Elliot and Patterson in the Mediterranean, and closed his active sea service during the Mexican War. At the time of his death he was consulting and visiting surgeon of the navy yard and marine barracks in Washington.

An American Physician at the Persian Court.—Dr. William S. Vanneman, born in New Jersey, educated at Princeton and the University of Pennsylvania (class of 1888), is court physician to the Shah of Persia, having under his care the half-thousand wives and servants of that newly crowned potentate. Dr. Vanneman was born thirty-three years ago, on a farm near Salem, N. J. He went to Persia as a missionary under the direction of the Presbyterian Board of Missions. When the cholera raged in Persia Dr. Vanneman rendered heroic and valuable service, which brought him under the notice of the highest officials in the Persian Kingdom. During the summer time, the court officials and their harems pass their time at Tabriz. Here in 1895 Dr. Vanneman made the acquaintance of the late Shah's youngest son, and on several occasions attended the Prince and the members of his harem. His skill quickly made the Prince his friend, and when the latter's father was murdered by a fanatic last May, Dr. Vanneman was one of the first to extend his sympathy. Not long after, when the Prince was named to succeed his father as Shah, the new ruler sent for the American and offered him the position of court physician. In August last, Dr. Vanneman and his wife set out from Tabriz accompanying the Shah's harem to Teheran. The caravan consisted of twenty carriages—about all there were to be had in the land—and 500 horses laden with men, women, children and baggage. The journey was expected to take three weeks, the caravan traveling from twenty-five to thirty miles daily. Dr. Vanneman and his wife occupied one of the carriages, and they had three tents for camping at night.—*New York Press.*

The Earliest Human Ovum.—At the recent meeting of the Naturforscher-Versammlung at Frankfort-on-Main, Professor Leopold exhibited microscopic sections of the youngest human ovum ever detected. The uterus of a woman, aged 30, was removed for cancer of the cervix. The interior was carefully examined. An undoubted ovum as big as a lentil was seen, making a prominence on the surface of the uterine mucous membrane, which was hypertrophied in its neighborhood. The periphery of the ovum was bounded by a deep groove devoid of mucous membrane. After careful inquiries it was concluded that the ovum had reached the eighth day after conception. Great pains were taken when accurate drawings had been made of the undisturbed ovum to procure successful sections. The highest expectations were fulfilled. The arrangement of the villi, and the opening of the arterioles of the endometrium into the intervillous spaces came out very clearly. A full report of this remarkable case, well illustrated, will, we understand, be published. Dr. Kanthack has added to the museum of St. Bartholomew's an instructive specimen of a very early human ovum in its membranes. Histologic study of the human embryo and its envelopes during the first few weeks of development is much needed. We must not rely too far on homologous structures in the lower mammals, where the anatomy and physiology of the genital tract differ in important details from the same in our species.—*British Medical Journal.*

The Tendency to Specialism and to Surgery which distinguishes these closing days of the nineteenth century, is manifested in every branch of science. One of the latest evidences is the recent announcement of the *Gazette Méd. de Paris* that henceforth it is to be devoted exclusively to surgery. The name will remain the same, but its scope will be limited to this department of the healing art. It states that the demands of the day necessitate the separation of the theoretical from the practical, and that the various scientific periodicals will have to devote themselves to certain specialties, as none can contain them all—the long studies, the practical notes, the miscellaneous news in every branch of science, and the records of experimental work. Such remarks seem strange to the readers of the JOURNAL, which publishes in a week as much as the *Gazette* in months, and leads them to rejoice anew in the wonderful capacity of these columns in which each specialist finds the news, the progress and the technical instruction in which he is most interested, brought to him every week from all over the globe and indexed for his ready convenience in each issue. The *Gazette*, and similar publications, with their limit of twelve pages of large type per week are of course forced to restrict themselves to some specialty, of which the readers of the JOURNAL also get the benefit, as their contents are reviewed each mail in these columns.

The Surgical Corps of the Cuban Army.—While accurate details regarding Cuba in general are extremely difficult to obtain, yet the reports which have reached us indicate that a great deal of excellent work is now being done by the surgical staff, whose members have displayed a degree of skill and conscientiousness which is somewhat surprising. They number about ninety men and are assigned to the six army corps of the insurgents. When we consider the organization of this army, which is without a basis of supplies, is constantly on the move and waging a sort of guerilla warfare, the difficulties attending the proper care and management of the wounded can be readily appreciated. Yet in spite of all this, the principles of modern surgery are carried out to the fullest extent permissible. The surgeons are well supplied with instruments and a fair supply of antiseptics, which the climatic and other conditions render absolutely essential to good work. It may

be said that the surgical corps is far superior in every way to that of the Spanish army, whose hospitals, even in the city of Havana, are filthy and overcrowded and in no degree provided with the essentials of surgical care. While the executive officers are inefficient and often uneducated, the reverse prevails among the ranks of the insurgents. The surgeon general is a graduate of one of our colleges and has had a military training, while no small number of the corps is composed of Americans and Cubans who are regular practitioners of medicine. Nearly all are well qualified and skilful. Under the circumstances, therefore, it is not surprising that they have acquitted themselves with honor if not with glory.—*New England Medical Monthly.*

Washington.

FAVORABLY REPORTED.—The House Committee has made a favorable report on Mr. McCormick's bill to regulate the sale of poisons in the District of Columbia.

THE X-RAYS IN COURT.—The X-rays were recently used in a case before the police court to determine the existence of a fracture of the forearm, claimed to have been produced during a recent arrest.

THE PURE FOOD BILL.—House bill 9842, relating to the adulteration of foods and drugs in the District, introduced at the instance of the Medical Society, has been reported upon favorably by the Commissioners, as amended by the Health Officer. This measure provides that adulterated foods or drugs shall not be sold or exchanged in the District, and that the courts shall construe the provisions against all forms of adulteration liberally, so as to prevent the mischief intended to be guarded against. The term "drug," as used in the act, includes "all medicines for external or internal use, antiseptics, disinfectants and cosmetics." The term "food" includes confectionery, condiments, and "all articles used for food or drink by man."

THE WASHINGTON DIRECTORY FOR NURSES.—The annual meeting of the joint committee of the Washington Training School for Nurses and the Medical Society, was held on the 8th instant. The report of the superintendent and the secretary showed the directory to be in a flourishing condition, and giving entire satisfaction to the public and the physicians. The number of independent directories in the city tend to scatter the nurses and their official records, hence to obviate this objection and centralize the supervision of the nursing community and raise the standard, a special committee, consisting of Drs. H. L. E. Johnson and S. S. Adams, was appointed to coöperate with the different directories and medical societies in securing concentration of nurse registration and supply, in one headquarter or clearing-house. If this coöperation and centralizing is accomplished it will be of the greatest advantage to the nurses, the schools, the public and the physicians.

COMMITTEE ON PUBLIC HEALTH.—At the meeting of the committee on public health of the Board of Trade, held on the 9th instant, it was agreed to urge an appropriation from Congress to secure the reclamation of the Anocostia flats after the plan proposed by the engineer corps of the army. At present there is no greater disease-producing element in any city in the country. The Army, Navy, Interior Departments, and the Health Department have repeatedly urged the abating of this nuisance, and demonstrated its influence in disease production. The petition should receive prompt consideration and action by Congress.

A RESOLUTION AFFECTING QUARANTINE.—Senator Elkins, of West Virginia, has introduced the following joint resolution:

"WHEREAS, in view of the alarming nature and spread of the bubonic plague, now prevailing in India and adjacent countries, and in view of the danger of this scourge being brought to the United States;

"*Resolved*, That at any port or place in the United States where the Secretary of the Treasury shall deem it necessary for the prevention of the introduction of contagion or infectious diseases that incoming vessels, vehicles or persons should be inspected by a national quarantine officer; such officer shall be designated or appointed by the Secretary of the Treasury, on recommendation of the Surgeon-General of the Marine Hospital Service, and at any such port or place no vessel, vehicle or person shall be admitted to entry without the certificate of said officer that the United States quarantine regulations have been complied with."

MEDICAL SOCIETY.—At the meeting of the Society held on the 10th instant, Dr. Norton read a paper on Infantile Scurvy and Rachitis; Dr. Shands reported a case of Hare-lip; Dr. Perry, a case of Necrosis of the Tibia; Dr. Prentiss, a case of Erythromelalgia, and presented the patient; Dr. Burnett, cases and specimens of old wound (gunshot) of orbit and temporal bone, bullet exhibited; large penetrating wound of cornea and iris.

WASHINGTON OBSTETRICAL AND GYNECOLOGICAL SOCIETY.—At the 257th meeting of the Society held on the 5th instant Dr. H. L. E. Johnson read the paper of the evening, on Atresia of the Uterine Canal after the Menopause. He referred to his original article on that subject published in the JOURNAL on Dec. 7, 1895.

THE PUBLIC SERVICES.

Army Changes. Official List of changes in the stations and duties of officers serving in the Medical Department, U. S. Army, from Feb. 13 to Feb. 19, 1897.

Capt. Philip G. Wales, Asst. Surgeon, is granted leave of absence for four months, to take effect upon his relief from duty at Ft. McPherson, Ga.

Major Robert M. O'Reilly, Surgeon, will be relieved from duty as attending surgeon in this city (Washington, D. C.) by Major William R. Hall, Surgeon, and upon expiration of his present leave of absence will proceed to Ft. Wayne, Mich., for station, relieving Lieut.-Col. J. M. Brown, Deputy Surgeon-General. Lieut.-Col. Brown, on being thus relieved, will proceed to New York City, and upon the retirement of Col. Charles T. Alexander, Asst. Surgeon-General, May 3, 1897, will take charge of the medical supply depot in that city.

PROMOTION.

Capt. John M. Banister, Asst. Surgeon, to be Surgeon with the rank of Major, Jan. 26, 1897.

Navy Changes. Changes in the Medical Corps of the U. S. Navy for the week ending Feb. 20, 1897.

Surgeon R. Whiting, placed on retired list Feb. 15.

Asst. Surgeon J. C. Rosenbleuth, detached from the "Raleigh" Feb. 20 and ordered to the "Massachusetts."

Change of Address.

Cook, J. E., from 128 Franklin Ave. to 258 Pearl St., Cleveland, Ohio.
Coffman, G. L., from 1654 California Ave. to 1521 S. Compton Ave., St. Louis, Mo.
Getzlaff, Bruno, from Fitzgerald, Ga., to St. Peter, Fayette County, Ill.
Holmes, H. R., from Portland to Salem, Ore.
Kent, J. L., from Dublin, Va. to 101 East 25th St., New York, N. Y.
Read, Flora A., from 520 to 502 Main St. Fond-du-Lac, Wis.
Roach, J. F., from 3308 Lucas Ave. to 4349 Forest Park Blvd., St. Louis, Mo.
Ross, G. M., from Masonic Temple to 2139 Wabash Ave., Chicago.
Seaman, Gilbert E., from 225 Grand Ave., to 315 Goldsmith Bldg., Milwaukee, Wis.
Waterman, Oscar M., from Milwaukee, Wis., to 59 Washington Market, Milwaukee, Wis.
Younger, Wm. J., from San Francisco, Cal., to Auditorium Hotel, Chicago.

LETTERS RECEIVED.

Ashmead, A. S., New York, N. Y.; Atkinson, W. B. (2), Philadelphia, Pa.; Aronson, Emil (2), Dallas, Texas; Albertson, E. W. (2), Minneapolis, Minn.
Barto, J. H., St. Louis, Mo.; Bode, Henry, Brooklyn, N. Y.; Broughton, Geo. A., Pomona, Cal.; Baughman, J. H., Neoga, Ill.; Bailey, W. G. (2), Pekin, Ill.
Chaille, S. E. (2), New Orleans, La.; Center, Chas. Dewey, Quincy, Ill.; Cokenower, J. W., Des Moines, Iowa.
Druggists' Circular, New York, N. Y.; Davis, Howard Lee, New Haven, Conn.; Davis, F. A., Co., Chicago; Doleber-Goodale Co., Boston, Mass.
Eagleson, J. B., Seattle, Wash.
Fuller's, C. H., Advertising Agency, New York, N. Y.; Fairman, E. W., Brodhead, Wis.
Graves, C. H., Chicago; Gilman, R. E., Brooklyn, N. Y.; Gardner, R. W. (2), New York, N. Y.
Hoyd, H. F. (2), Buffalo, N. Y.; Hummell, A. L., Advertising Agency, New York, N. Y.; Hoffman, M. W., Dubuque, Iowa; Haralson, H. H., Biloxi, Miss.; Hall, F. L., Perry, Ill.; Hektoen, L., Chicago.
Imperial Granum Co. (2), New Haven, Conn.; Instant Cut-Off Co., Port Huron, Mich.
Judd, W. H., Janesville, Wis.; Journal of Cutaneous and Genito-Urinary Diseases, New York, N. Y.
Landon, L. C. (2), Priam, Ind.; Lichty, John A., Clifton Springs, N.Y.
McCassy, J. H., Dayton, Ohio; McNamee, Thos., Wabash, Ind.; Mullen, T. R., Marcus, Iowa; Madden, John, Milwaukee, Wis.; Mathews, J. M., Louisville, Ky.; Mason, Wm. C., Bangor, Maine; Morton, D. A., New York, N. Y.
Pilcher, James E., Columbus, Ohio; Pettibone, P. F., & Co., Chicago; Perry, Dane, Blenker, Wis.; Pegram, E. C., Fort Lynn, Ark.; Parkinson, James H., Sacramento, Cal.; Procter & Collier Co., Cincinnati, Ohio.
Rigaud & Chapoteaut, New York, N. Y.; Richardson, S. A., Cleveland, Ohio; Rosse, Irving C., Washington, D. C.; Rook, Charles W., Quincy, Ill.
Sayre, Reginald H., New York, N. Y.; Saunders, W. B. Philadelphia, Pa.; Sixta, L. H., Chicago.
Thayer, C. C., Clifton Springs, N. Y.; Ten Broeck, W. H., Paris, Ill.
Watkins, W. J., Springwillow, Texas; Watkins, S. E., Washington, D. C.; Weaver, H. S., Philadelphia, Pa.